

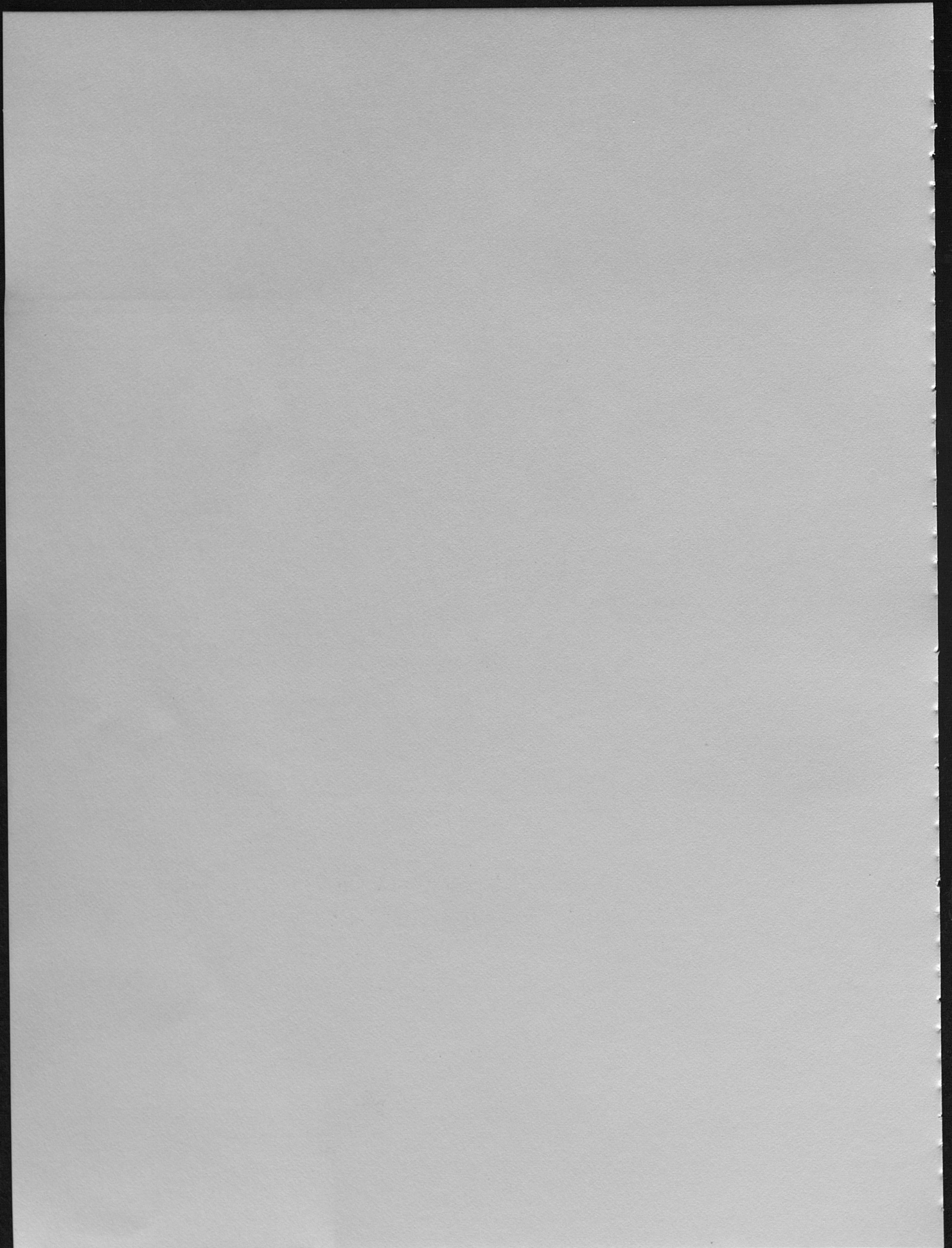
Progress Report 223

THE LEAF- HOPPERS OF KENTUCKY

PART I: AGALLIINAE,
IDIOCERINAE AND
MACROPSINAE

By Paul H. Freytag

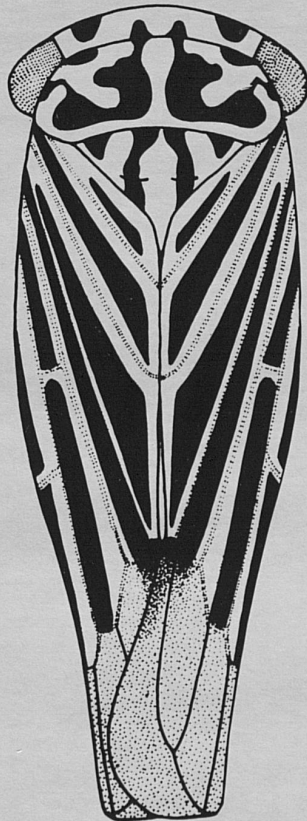
UNIVERSITY OF KENTUCKY • COLLEGE OF AGRICULTURE • AGRICULTURAL EXPERIMENT STATION
Department of Entomology • Lexington



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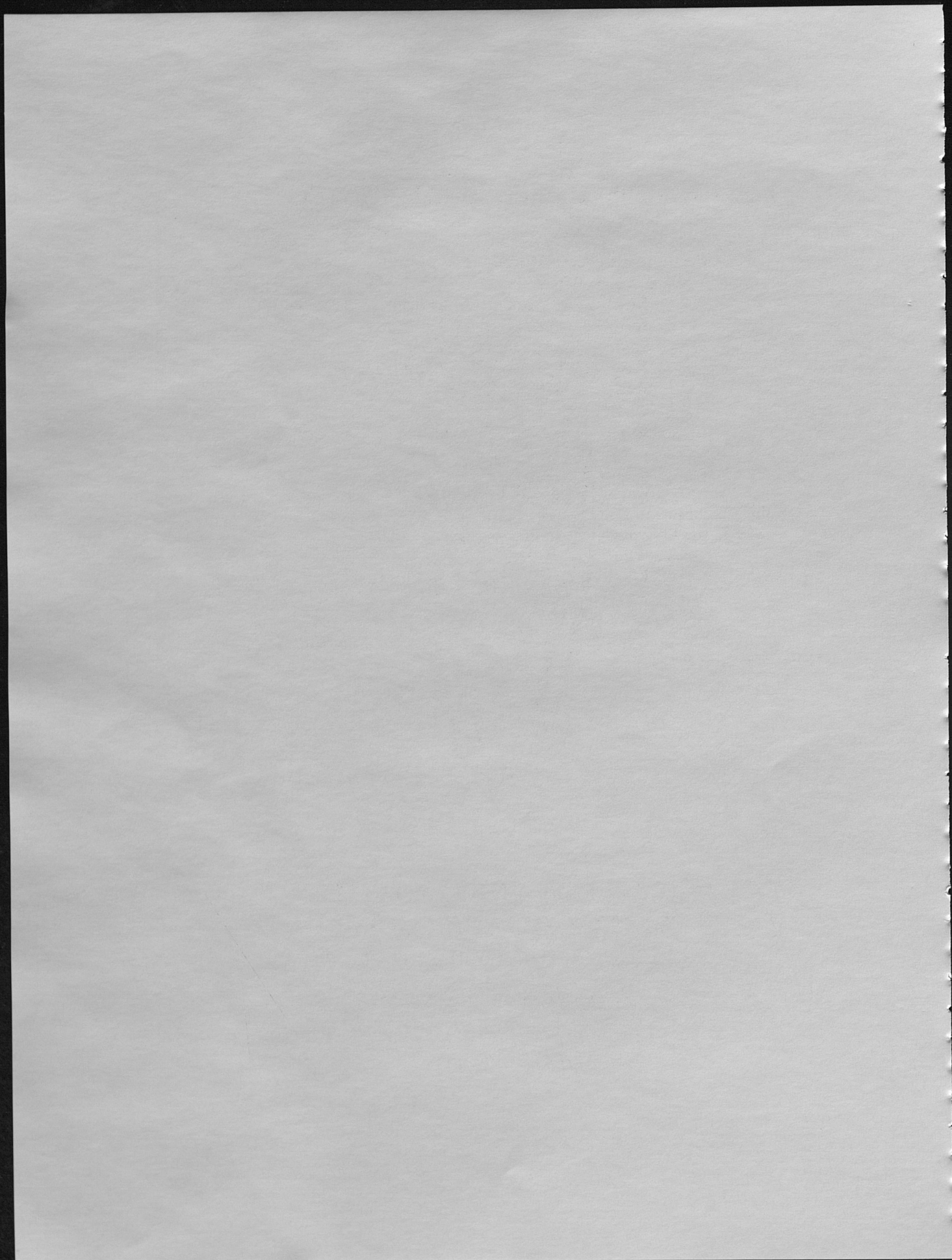
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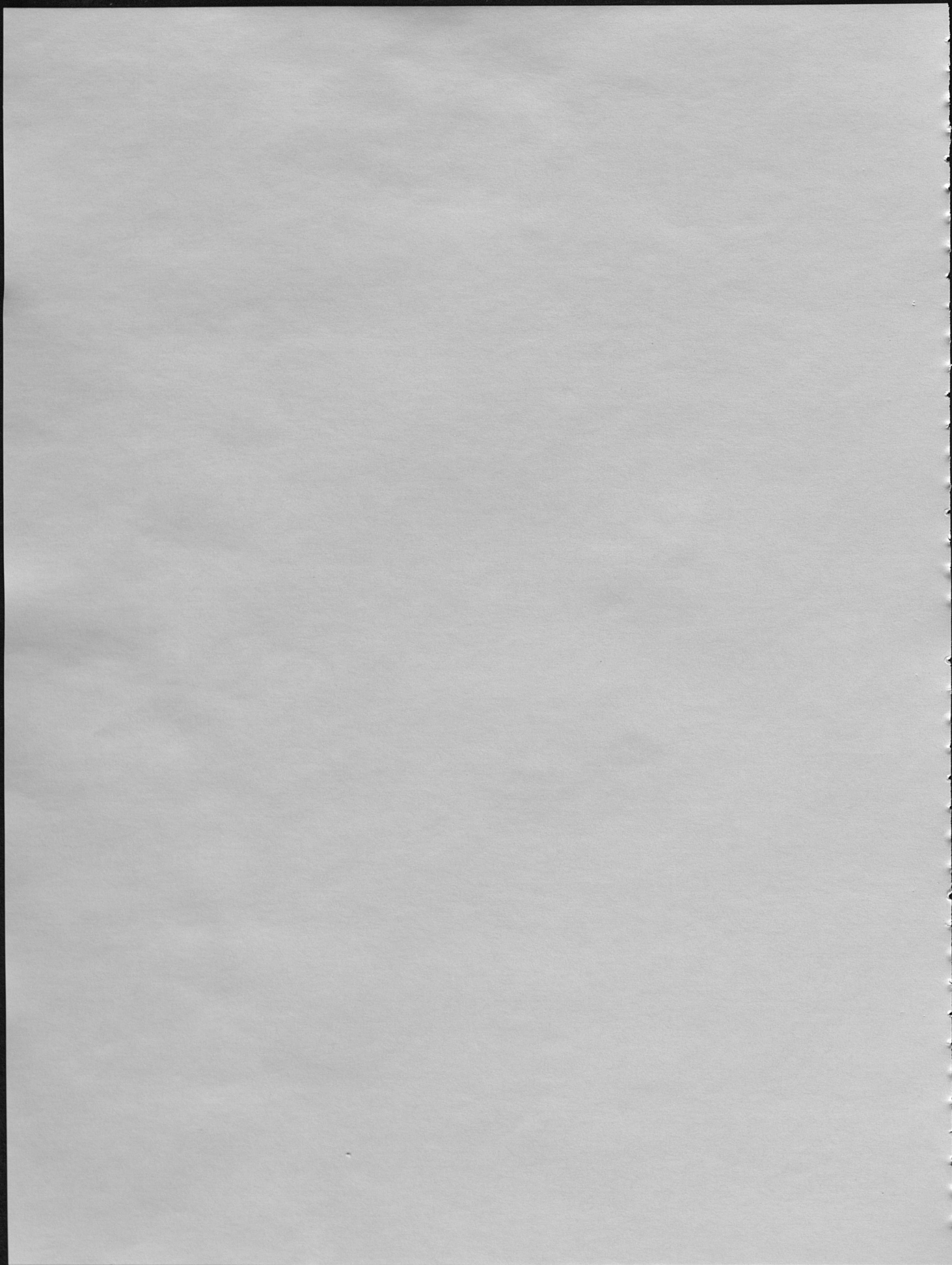
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PROGRESS REPORT 223



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THE LEAFHOPPERS OF KENTUCKY

PART I: AGALLIINAE, IDIOCERINAE AND MACROPSINAE

BY PAUL H. FREYTAG

This is the first of several projected publications on the leafhoppers (Cicadellidae) which occur in Kentucky or might be found in the state by being known from a bordering state. This part covers the subfamilies Agalliinae, Idiocerinae, and Macropsinae all of which have the ocelli on the face. A key to all subfamilies is included.

In each subfamily a key is included to identify genera (and described subgenera). Also, a key to species is included under each genus. These keys are illustrated where possible or necessary. Each species included is described and illustrated by a

dorsal view of a typical specimen. Information on food or host plants and parasites is included. The known distribution for each species is given by the use of two maps, one showing the distribution by state for the eastern states and the other showing the distribution by county for the state of Kentucky. Even though the species has not been collected in the state, a map is included for future distribution records.

The species of the three included subfamilies are triple the number recorded by Young (1949) in his preliminary list of Kentucky leafhoppers.

ACKNOWLEDGMENTS

The author thanks the following persons for the loan of their institutions' specimens used in this study: J. P. Kramer, United States National Museum; C. A. Triplehorn and D. M. DeLong, Ohio State University; and C. V. Covell, Jr., University of Louisville. These collections, with the University of Kentucky collection, contained the majority of the Kentucky records. These same museums and others in this country have also been helpful in providing specimens which fill in records from other eastern states.

Also, thanks are given Dr. Kramer for reading the manuscript and making many helpful suggestions.

KEY TO THE SUBFAMILIES OF EASTERN NORTH AMERICAN CICADELLIDAE
 [Modified from Oman (1949)]

- | | |
|--|---|
| <p>1. Episternum entirely exposed, or with the anterior border concealed by the gena 2</p> <p>1'. Episternum concealed, at least basally, by the gena, the exposed part consisting of not more than a small distal area 3</p> <p>2. (1) Ocelli on or near disk of crown, remote from eyes and from anterior margin of crown . . . Ledrinae</p> <p>2'. Ocelli or ocellar vestigates on margin of head near eyes Dorycephalinae</p> <p>3. (1') Clypellus large, broad basally, narrowed and rounded distally; clypeus and clypellus tumid. Ocelli on crown, usually near disk . . Cicadellinae</p> <p>3'. Facial sclerites not as above or, if so, then ocelli on face or close to the eyes 4</p> <p>4. (3') Lateral frontal sutures terminating at or slightly above antennal pits, or with ocelli near disk of crown and remote from eyes, or both. Robust and sometimes flattened forms 5</p> <p>4'. Lateral frontal sutures extending beyond antennal pits to or near ocelli or ocellar vestiges; ocelli never on or near disk of crown. Form variable 9</p> <p>5. (4) Lateral margins of pronotum carinate and moderately long. Ledge or carina above antennal pit transverse or nearly so 6</p> <p>5'. Lateral margins of pronotum short and not or but feebly carinate. Ledge above antennal pit, if present, oblique 8</p> <p>6. (5) Face, in profile, concave. Forewing with appendix very large; first apical cell large, equal in area to second and third combined. Male valve exposed, plates not ligulate Penthimiinae</p> <p>6'. Face, in profile, not concave, usually distinctly convex. Appendix of forewing normal or small; first apical cell not enlarged. Male valve and at least base of plates concealed by eighth sternum; plates ligulate 7</p> <p>7. (6') Ocelli on crown Gyponinae</p> <p>7'. Ocelli on anterior margin of head Iassinae</p> <p>8. (5') Hind wing with three apical cells. Distance between ocelli equal to, or usually greater than, twice the distance from ocelli to eye... Macropsinae</p> <p>8'. Hind wing with four apical cells. Distance between ocelli not over twice distance from ocellus to eye Agalliinae</p> | <p>9. (4') Almost entire dorsum with circular pits Nioniinae</p> <p>9'. Dorsum without such pits 10</p> <p>10. (9') Distance between ocelli less than distance between antennal pits; if sometimes about equidistant, then clypellus much wider distally than basally and extending to or beyond apex of genae. Ocelli always present 11</p> <p>10'. Distance between ocelli or ocellar vestiges equal to or greater than distance between antennal pits; if sometimes about equidistant, then clypellus parallel-sided and usually not extending to apex of genae. Ocelli either present or absent 12</p> <p>11. (10) Clypeus long and narrow, of nearly uniform width. Costal margin of hind wing of macropterous forms expanded for a short distance near base. Head always narrower than pronotum . . . Coelidiinae</p> <p>11'. Clypeus short and broad, apex much narrower than base. Costal margin of hind wing not expanded basally. Head nearly always wider than pronotum Idiocerinae</p> <p>12. (10') Clypeus extended laterally over base of antenna, thus forming a relatively deep though inconspicuous antennal pit. Small species with head rounded, eyes small, clypeus ovate, antenna near margin of eye and ocellus distant from eye Xestocephalinae</p> <p>12'. Clypeus not extended laterally over base of antenna to form an antennal pit. Species variable but not with above-mentioned combination of characters 13</p> <p>13. (12') Ocellocular area with a distinct ledge or carina above antennal pit 14</p> <p>13'. Ocellocular area not produced into a distinct ledge or carina above antennal pit 15</p> <p>14. (13) Ledge above antennal pit oblique; face strongly convex Neocoelidiinae</p> <p>14'. Ledge above antennal pit transverse; face broad and relatively flat, not strongly convex Aphrodinae</p> <p>15. (13') Macropterous and forewing usually without cross-veins anterior to the apical series, veins indistinct basally. Ocelli often absent. Small, fragile forms, often brightly colored Typhlocybiniae</p> |
|--|---|

- 15'. Macropterous or brachypterous, forewing usually with one or more cross-veins anterior to the apical series. Veins distinct basally, ocelli usually present 16
16. (15') Margin of check below eye strongly sinuated or incised. Species usually distinctly flattened dorso-ventrally; crown flat or nearly so, strongly produced and with anterior margin acute or frequently foliaceous. Lateral margins of pronotum carinate and usually as long as or longer than the short diameter of eye in dorsal view . . .Hecalinae

- 16'. Margin of check not incised or strongly sinuated; if so then head not produced and body not dorso-ventrally flattened. Lateral margins of pronotum short and, if carinate, usually only feebly so . . 17
17. (16') Macropterous, the forewing long and slender with outer anteapical cell absent, without extra cross-veins, inner anteapical cell open basally, and appendix well developed. Ocellus more than its own width from eye Balcluthinae
- 17'. Macropterous or brachypterous, venation of forewing not as above or, if so, then ocellus near eye Deltocephalinae

SUBFAMILY AGALLIINAE

The leafhoppers of this subfamily are characterized by being rather wedge-shaped, ocelli on the face, frontal sutures terminating at the antennal pits, femoral setal formula 2-1, forewings longer than abdomen and without an appendix. The host plants of this subfamily are herbaceous plants, shrubs and trees.

Four genera of this subfamily occur in the Nearctic region, *Agallia* Curtis, *Agalliopsis* Kirkaldy, *Aceratagallia* Kirkaldy and *Ceratagallia* Kirkaldy. The first three genera occur in Kentucky.

KEY TO THE EASTERN GENERA OF AGALLIINAE

1. Posterior margin of crown sinuately curved near eyes, expanded and extending behind each eye. (Fig. 1a) *Agalliopsis* Kirkaldy

Posterior margin of crown evenly curved, not greatly expanded or extending behind each eye. (Fig. 1b) . . 2

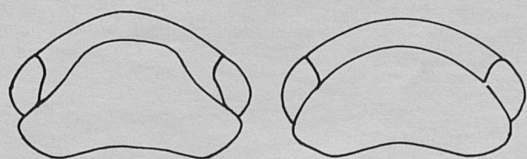


Fig. 1-A. Fig. 1-B.

2. Surface of pronotum with transversely rugulose striae (Fig. 2a) *Aceratagallia* Kirkaldy

Surface of pronotum without transversely rugulose striae. (Fig. 2b) *Agallia* Curtis

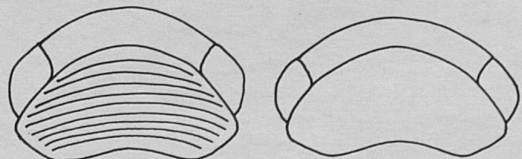


Fig. 2-A. Fig. 2-B.

Agalliopsis Kirkaldy

This genus is characterized by having the posterior margin of head sinuately curved and crown expanded and extended behind the eyes. The surface of the pronotum is without striae. Various colors from gray brown to black, patterned in black. Most species are sexually dimorphic in size and color. Host plants in Kentucky are unknown but probably range from herbaceous plants to trees and shrubs. Oman (1933) last revised the Nearctic species.

KEY TO THE SUBGENERA OF *AGALLIOPSIS* AND THE SPECIES FOR THE KENTUCKY AREA

1. Male plates fused basally (Fig. 3a) (subgenus *Agallaria* Oman—one Eastern species *cervina* Oman found in the Gulf Coast states on live oak.)

Male plates normal (Fig. 3b) (subgenus *Agalliopsis* Kirkaldy 2

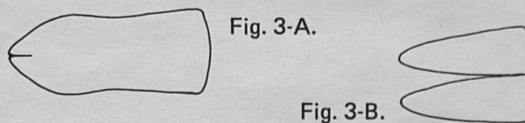


Fig. 3-A.

Fig. 3-B.

2. Basal processes of aedeagus foot-shaped at apex (Fig. 4a) *ancistra* Oman

Basal processes of aedeagus slightly swollen at apex (Fig. 4b) *novella* (Say)

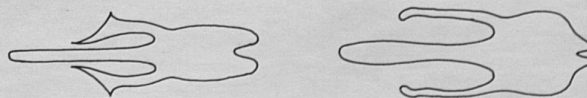


Fig. 4-A.

Fig. 4-B.

Agalliopsis (A.) ancistra Oman
(Figs. 5-7)

Agalliopsis ancistra Oman 1970, p. 23.

Length of males 3.5-4.0 mm., females 4.0-4.3 mm.

Slightly larger than *novella*. Crown shorter at middle than next to eyes, extending behind eyes. Pronotum large, three to four times longer than crown. Forewings long, narrow, not overlapping at apex, without appendix.

Color: Variable, light brown to dark brown, usually lighter than *novella*. Crown with two pairs of black spots, one behind eyes, other just inside eyes, with a dark streak down median. Pronotum with a longitudinal dark median stripe and a pair of spots halfway between stripe and lateral margin. Forewing brown with lighter veins.

Male genitalia: Plates short, bluntly rounded at apex. Pygofer extending into a bulbous apex, pygofer processes exposed, extending caudad beyond apex. Style short, claw-like. Aedeagus tubular with a pair of long basal processes attenuated or foot-shaped at apex.

Female genitalia: Similar to *novella*; posterior margin of seventh sternum broadly and deeply emarginate.

This species is infrequently collected, and the host plants are unknown.

Parasites: None have been recorded for this species.

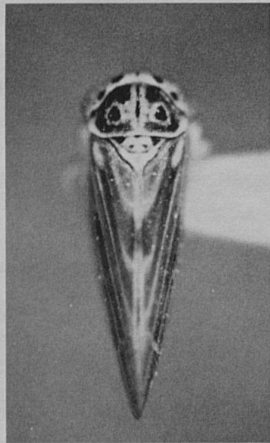


Fig. 5. — Dorsal view of male *A. ancistra* Oman.

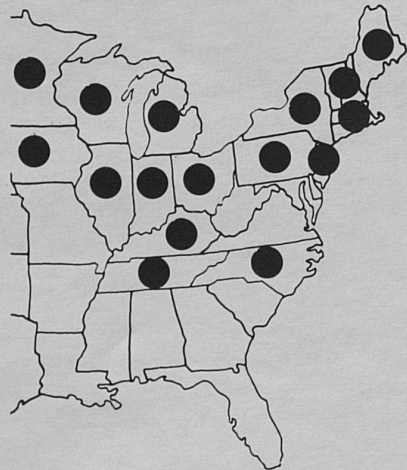


Fig. 6. — Eastern distribution of *A. ancistra* Oman.

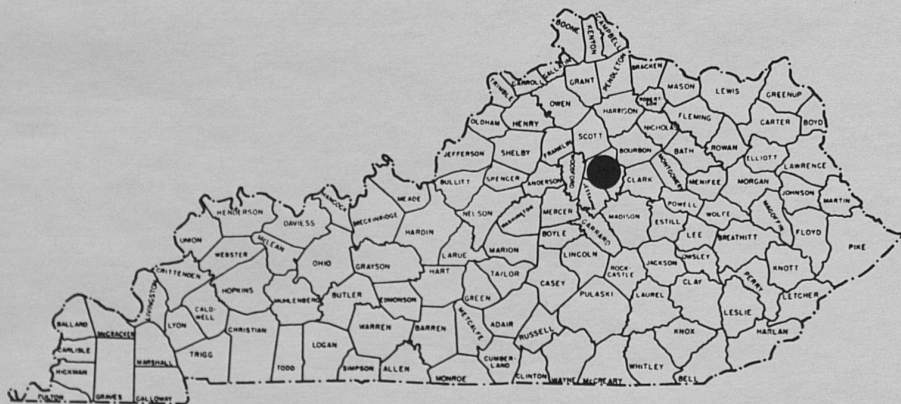


Fig. 7. — Kentucky distribution of *A. ancistra* Oman.

Agalliopsis (A.) novella (Say)
(Figs. 8-10)

Jassus novellus Say 1831, p. 309.

Length of males 3.3-3.5 mm., females 3.7-4.0 mm.

Crown shorter at middle than next to eyes, extending behind eyes. Pronotum large, three to four times longer than crown. Forewings long, narrow, not overlapping at apex, without appendix.

Color: Variable, from light gray to dark brown black with dark brown pattern. Crown with two pair of black spots, one behind eyes, other just inside eyes. Pronotum with a longitudinal dark median stripe and a pair of spots half-way between stripe and lateral margin. Forewing light brown to brown with lighter veins.

Male genitalia: Plates short, bluntly rounded at apex. Pygofer extending into a bulbous apex, not completely covering internal structures. Style short, claw-like.

Aedeagus tubular with a pair of long basal processes that are slightly expanded at apex.

Female genitalia: Posterior margin of seventh sternum broadly and deeply emarginate.

This is the most commonly collected species of this genus in Kentucky. Probably occurs on a wide range of herbaceous plants but is known to be on alfalfa and clovers. This species is a vector of potato yellow dwarf virus (New York and New Jersey strains), clover club leaf virus, and wound tumor virus (Nielson, 1968).

Parasites: Specimens have been collected with pipunculid larvae present.

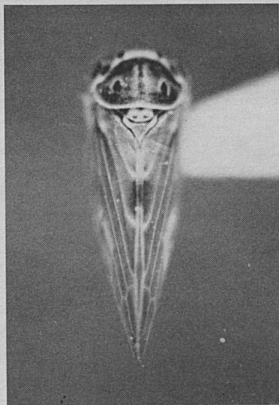


Fig. 8. — Dorsal view of male *A. novella* (Say).

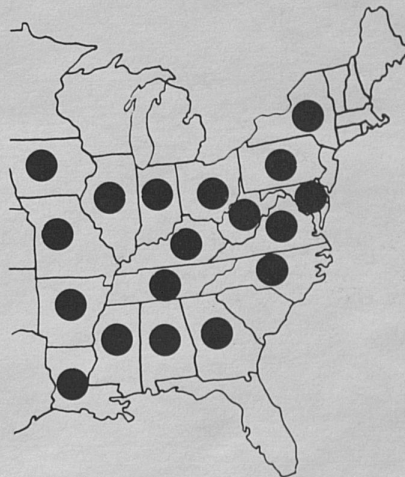


Fig. 9. — Eastern distribution of *A. novella* (Say).

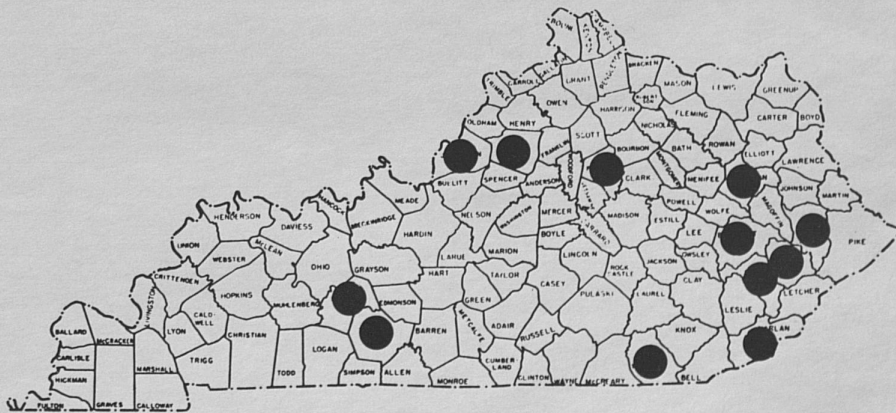


Fig. 10. — Kentucky distribution of *A. novella* (Say).

Aceratagallia Kirkaldy

This genus is characterized by having the posterior margin of the head evenly curved and the crown not expanded or extending behind the eyes. Surface of the pronotum with transverse rugulose striae. Variously colored from brown to dark brown. Most species are slightly sexually dimorphic in size and color. Host plants in Kentucky are primarily grasses and composites. Oman (1933) last revised the Nearctic species.

KEY TO THE SPECIES OF *ACERATAGALLIA*
FOR THE KENTUCKY AREA

1. Female with posterior margin of seventh sternum broadly excavated (Fig. 11a); male style broad with process on mid-ventral side . . . *uhleri* (Van Duzee)

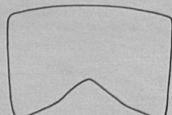


Fig. 11-A.

Female with posterior margin of seventh sternum not greatly excavated (Fig. 11b); male style either foot-shaped or twisted 2



Fig. 11-B.

2. Male style short and twisted (Fig. 12a)
. *vulgaris* Oman
- Male style foot-shaped (Fig. 12b)
. *sanguinolenta* (Provancher)



Fig. 12-A.



Fig. 12-B.

Aceratagallia uhleri (Van Duzee)
(Figs. 13-15)

Agallia uhleri Van Duzee 1894, p. 91.

Length of males 3.2-3.5 mm., females 3.4-3.8 mm.

A slender species, slightly longer than *sanguinolenta*. Crown rounded, slightly longer in middle than next to eyes, posterior margin evenly rounded. Pronotum three times longer than crown. Forewings long, somewhat flaring, not overlapping at apex.

Color: Generally yellowish-brown to brown. Crown with a pair of prominent black spots. Pronotum and scutellum patterned with brown and black. Forewings yellowish-brown, veins mostly dark brown, with white spots or dashes.

Male genitalia: Plates as long as pygofer and truncate

at apex. Pygofer truncate with a small spine-like process on each side. Styles broad, nearly truncate at apex, with a small median ventral tooth. Aedeagus tubular, straight on ventral caudal side, slightly hooked at apex.

Female genitalia: Seventh sternum with a broad deep median emargination.

This species has not been collected in Kentucky but occurs in two bordering states (Fig. 14). It is a common species west of the Mississippi River and probably is a general feeder on many plants in grassland areas.

Parasites: None have been recorded for this species.

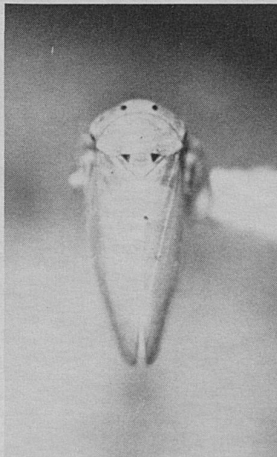


Fig. 13. — Dorsal view of male *A. uhleri* (Van Duzee).

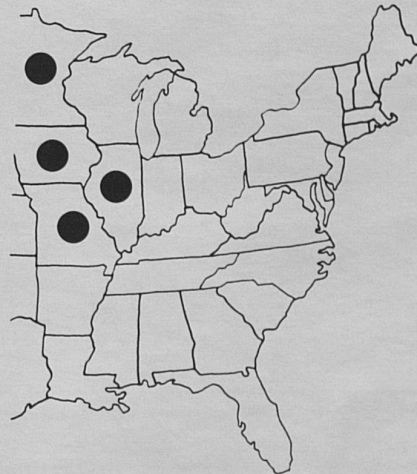


Fig. 14. — Eastern distribution of *A. uhleri* (Van Duzee).

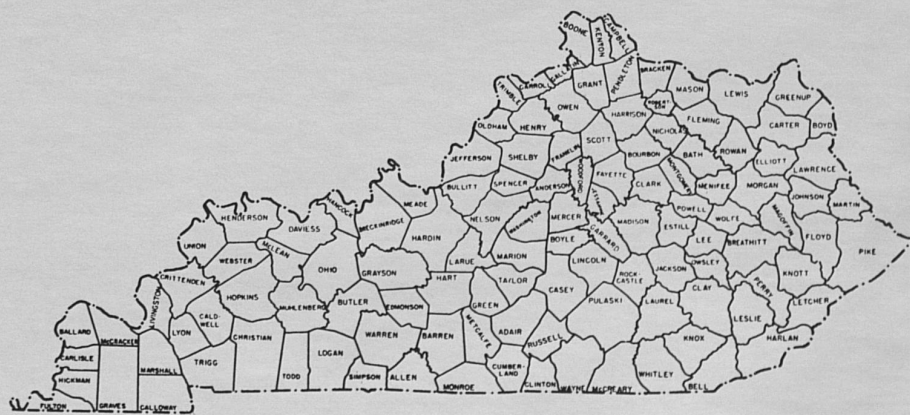


Fig. 15. — Kentucky distribution of *A. uhleri* (Van Duzee).

Aceratagallia vulgaris Oman
(Figs. 16-18)

Aceratagallia vulgaris Oman 1933, p. 60.

Length of males 2.4-2.7 mm., females 2.7-3.0 mm.

A small species, slightly smaller than *sanguinolenta*, crown rounded, slightly longer in middle than next to eyes. Pronotum three times longer than crown. Forewings long, flaring, slightly overlapping at apex.

Color: Generally yellowish-brown to brown. Crown with a pair of prominent black spots. Pronotum and scutellum patterned with brown and black. Forewings yellowish-brown, veins dark brown interrupted with white spots and dashes.

Male genitalia: Plates short and truncate. Pygofer

truncate with a small spine-like pygofer process on each side. Styles short, twisted. Aedeagus tubular, short, slightly curved on ventral caudal side.

Female genitalia: Seventh sternum truncate with a slight median emargination.

This species probably occurs throughout the eastern states, and a few specimens have been collected in Kentucky. Little is known of its host plants.

Parasites: Specimens have been collected with halictophagids present.

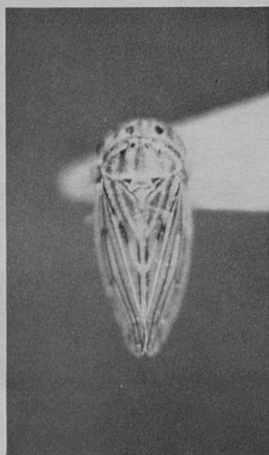


Fig. 16. — Dorsal view of male *A. vulgaris* Oman.

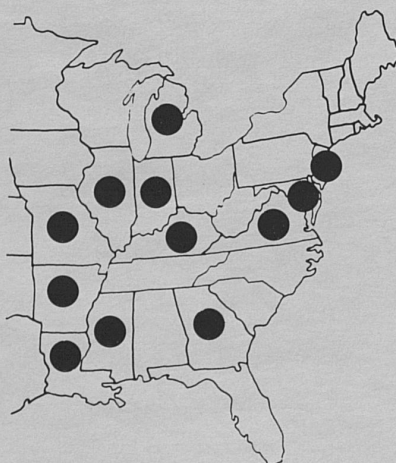


Fig. 17. — Eastern distribution of *A. vulgaris* Oman.

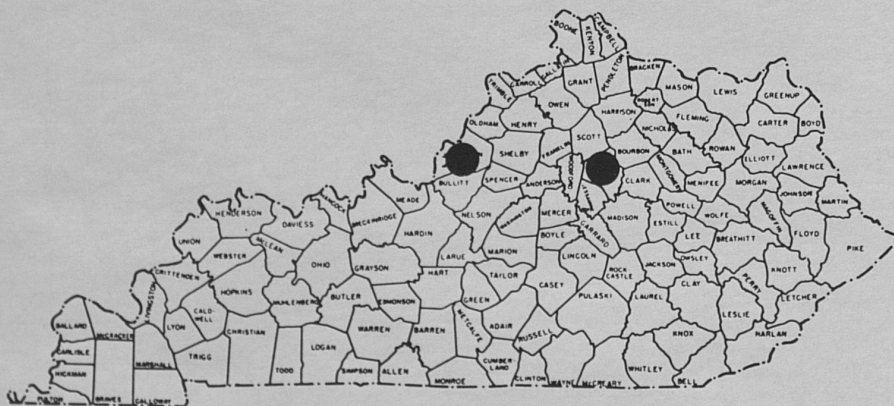


Fig. 18. — Kentucky distribution of *A. vulgaris* Oman.

Aceratagallia sanguinolenta (Provancher)

(Figs. 19-21)

Bythoscopus sanguinolentus Provancher 1872, p. 376.

Length of males 2.6-2.8 mm., females 2.8-3.2 mm.

A robust species, crown rounded, same length in middle as next to eyes. Pronotum four times longer than crown. Forewings long, flaring, not overlapping at apex.

Color: Generally yellowish-brown to dark brown. Crown with a pair of prominent black spots. Pronotum and scutellum patterned with brown and black. Forewings brown, veins darker interrupted with white spots and dashes.

Male genitalia: Plates as long as pygofer, slightly narrowed and truncate at apex. Pygofer somewhat produced on ventral caudal margin with a spine-like pygofer process on each side. Styles long, extending to a foot-like

apex, which is ridged ventrally. Aedeagus tubular, rounded on ventral caudal side.

Female genitalia: Seventh sternum with posterior margin concavely rounded on each side of a slight median emargination.

This is a very common and abundant species in the eastern states. It feeds primarily on clovers, corn, grapes and alfalfa but has been reported on many economic crops. The name *accola* Oman is considered a synonym of this species.

Parasites: None have been recorded for this species.

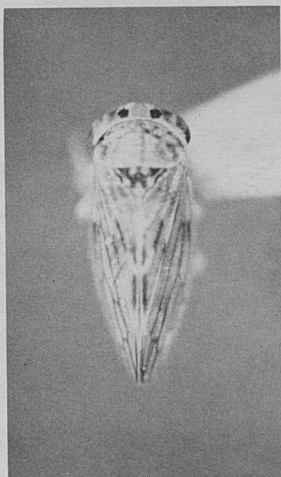


Fig. 19. — Dorsal view of male *A. sanguinolenta* (Provancher).

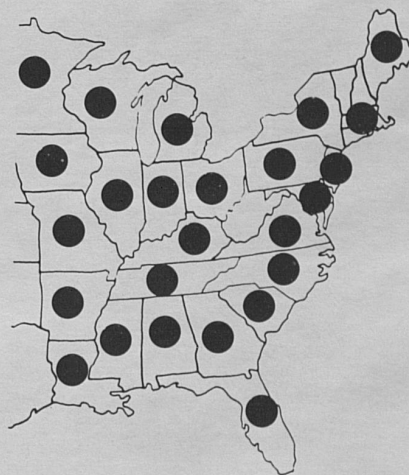


Fig. 20. — Eastern distribution of *A. sanguinolenta* (Provancher).

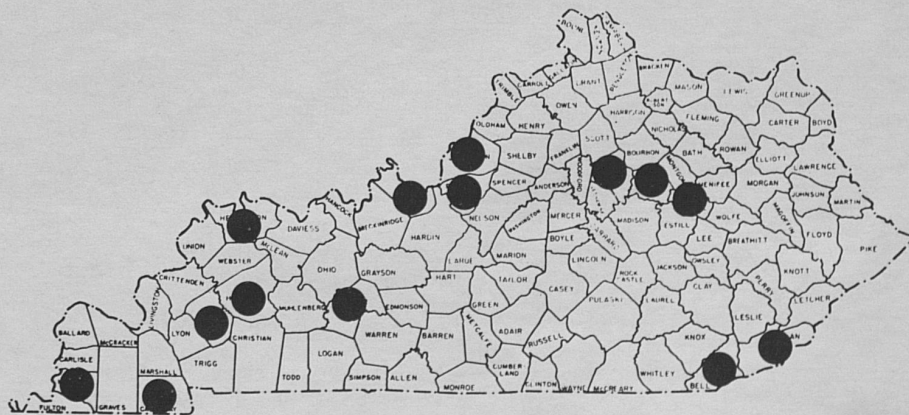


Fig. 21. — Kentucky distribution of *A. sanguinolenta* (Provancher).

Agallia Curtis

This genus is characterized by having the posterior margin of the head evenly curved and the crown not expanded or extended behind the eyes. The surface of the pronotum without striae. Vari-

ously colored from gray brown to black. Most species sexually dimorphic in size and color. The host plants in Kentucky are primarily grasses and composites. Oman (1933) last revised the Nearctic species.

KEY TO THE SPECIES OF *AGALLIA*
FOR THE KENTUCKY AREA

1. Male plate narrowing to pointed apex, female with posterior margin of seventh sternum truncate to slightly concave (Fig. 22a) . . . *quadripunctata* (Provancher)

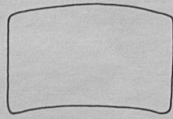


Fig. 22-A.

- Male plate constricted near middle with apex blunt, female with posterior margin of seventh sternum convexly produced (Fig. 22b) . . . *constricta* Van Duzee

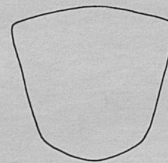


Fig. 22-B.

Agallia quadripunctata (Provancher)
(Figs. 23-25)

Bythoscopus quadripunctatus Provancher 1872, p. 376.
Length of females 3.9-4.3 mm.

Robust, larger than *constricta*. Crown short, same width in middle as next to eyes; posterior margin evenly curved, not extending behind eyes. Pronotum three times longer than crown. Forewings long, somewhat flaring, not overlapping at apex.

Color: General ground color brown to dark brown. Crown with a pair of prominent black spots on anterior margin. Pronotum with another pair of faint spots close to posterior margin nearly in line with spots on crown. Forewings brown, veins paler.

Male genitalia: Plate acutely angled to pointed apex, as long as pygofer. Pygofer robust, bluntly rounded. Style

short and claw-like. Aedeagus long, tubular, strap-like.

Female genitalia: Seventh sternum only slightly larger than preceding segment, posterior margin truncate.

Only the female of this species has been collected in Kentucky. This species normally reproduces parthenogenetically, but males are known from the northern states and Canada. This species occurs primarily on clovers and is also a vector of potato yellow dwarf virus (New Jersey strain) and wound tumor virus (Nielson, 1968).

Parasites: Some females have been collected with halictophagids present.

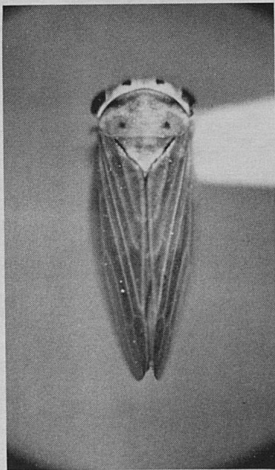


Fig. 23. — Dorsal view of female *A. quadripunctata* (Provancher).

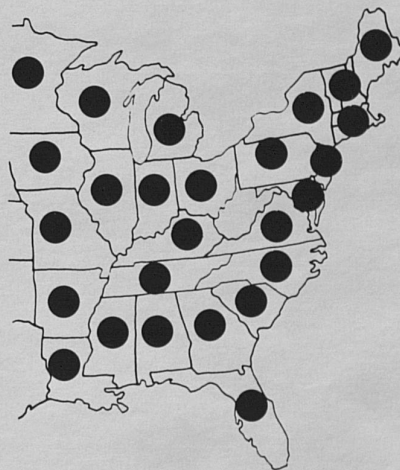


Fig. 24. — Eastern distribution of *A. quadripunctata* (Provancher).

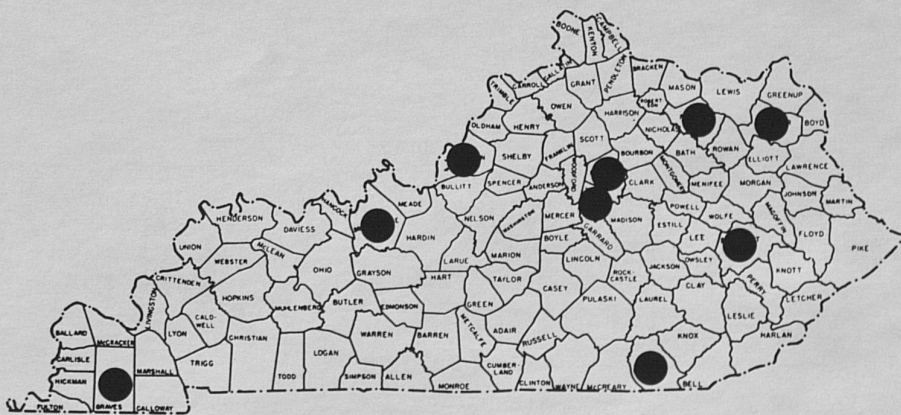


Fig. 25. — Kentucky distribution of *A. quadripunctata* (Provancher).

Agallia constricta (Van Duzee)
(Figs. 26-38)

Agallia constricta Van Duzee 1894, p. 90.

Length of males 3.4-3.7 mm., females 3.5-3.8 mm.

Crown short, same length in middle as next to eyes; posterior margin evenly curved, not extending behind eyes. Pronotum three times longer than crown in middle, lateral margins small. Forewings long, narrow and not overlapping at apex.

Color: General ground color yellowish-brown to dark brown. Crown with a pair of prominent black spots on anterior margin. Pronotum with another pair of black spots close to posterior margin nearly in line with spots on crown. Forewings usually brown, unmarked, with veins somewhat paler.

Male genitalia: Plate wide at base, constricted near middle, then extending to a somewhat rounded apex. Pygofer slightly longer than plates in lateral view, somewhat

constricted near middle. Style short and claw-like. Aedeagus long and tubular, slightly longer than pygofer, bifurcate at apex.

Female genitalia: Seventh sternum much longer than preceding segment, posterior margin roundedly produced, medianly keeled.

This is the most common species of this subfamily in Kentucky and can be collected in large numbers on many economic crops. It is a vector of potato yellow dwarf virus (New Jersey strain) and wound tumor virus (Nielson, 1968).

Parasites: This species is commonly parasitized by halictophagids, and several nymphs have been collected with pipunculids.

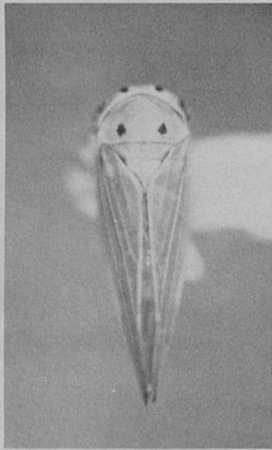


Fig. 26. — Dorsal view of male *A. constricta* Van Duzee.

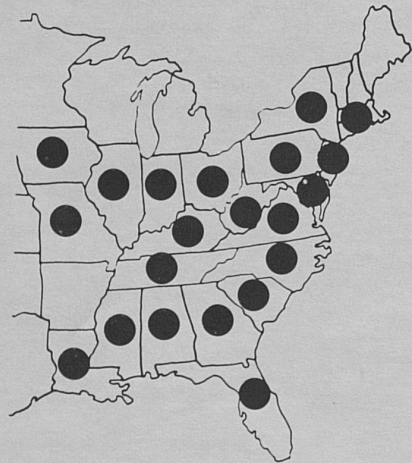


Fig. 27. — Eastern distribution of *A. constricta* Van Duzee.

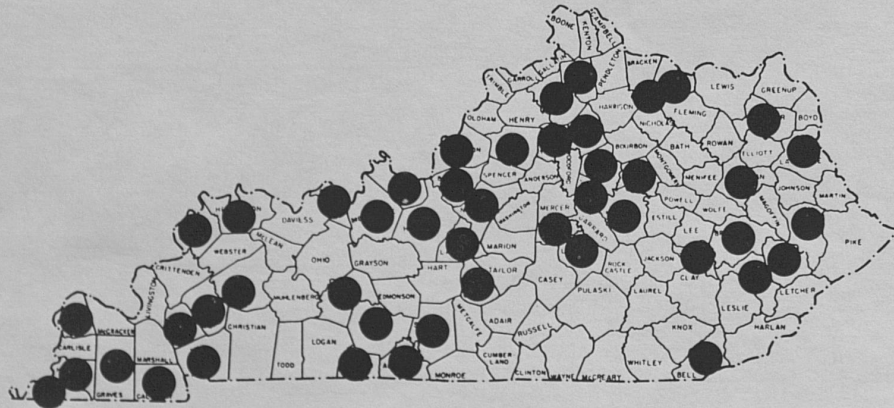


Fig. 28. — Kentucky distribution of *A. constricta* Van Duzee.

SUBFAMILY IDIOCERINAE

The leafhoppers of this subfamily are characterized by being rather wedge shaped, ocelli on the face near or at the ends of the frontal sutures, forewings longer than abdomen with a large appendix and the femoral setal formula 2-0 or 2-1. The host plants of this subfamily are trees and shrubs.

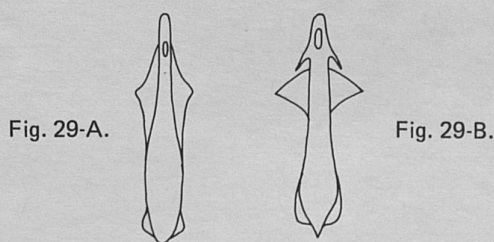
Two genera of this subfamily occur in the nearctic region, *Idiocerus* Lewis and *Jamacerus* Freytag. Only the genus *Idiocerus* occurs in Kentucky.

Idiocerus Lewis

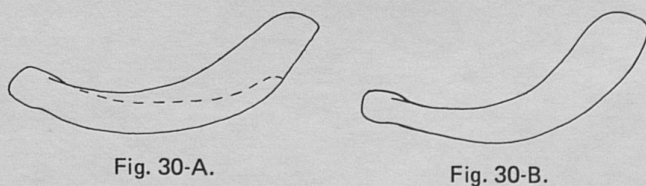
This genus is characterized the same as the subfamily and with the femoral setal formula 2-0. The species range from 4 to 8 mm in length. They may be variously colored, from solid green to highly patterned individuals. Most species are sexually dimorphic in size and color. The known host plants in Kentucky are *Salix*, *Populus*, *Crataegus*, *Juniperus*, *Pyrus*, and *Amelanchier*. Freytag (1965) last revised the Nearctic species.

KEY TO THE SPECIES OF *IDIOCERUS* FOR THE KENTUCKY AREA

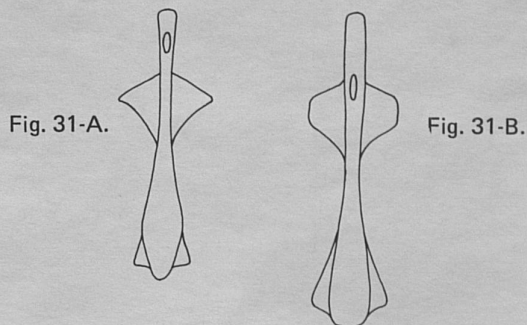
1. Aedeagal shaft without processes (Fig. 29a) 2
- Aedeagal shaft with processes (Fig. 29b) 4



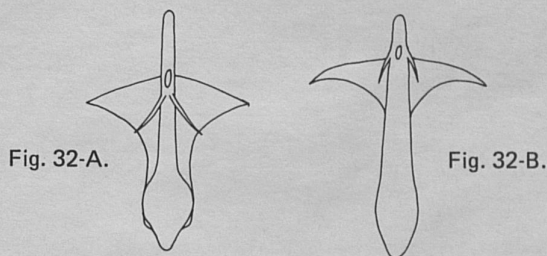
2. Plates thickened nearly to apex (Fig. 30a)
. *moniliferae* Osborn and Ball
- Plates thin (Fig. 30b) 3



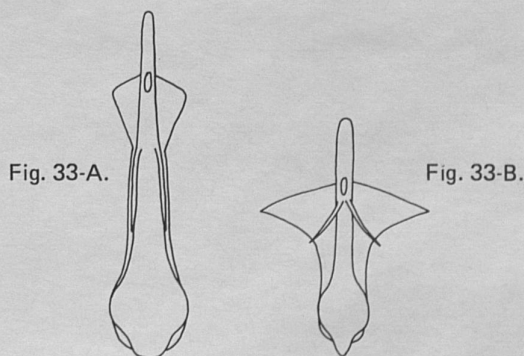
3. Aedeagal shaft with gonopore near apex (Fig. 31a) . .
. *provancheri* Van Duzee
- Aedeagal shaft with gonopore a third the length of
shaft from apex (Fig. 31b) *fitchi* Van Duzee



4. Aedeagal shaft with processes near middle (Fig. 32a)
. 5
- Aedeagal shaft with processes near apex (Fig. 32b) . 6

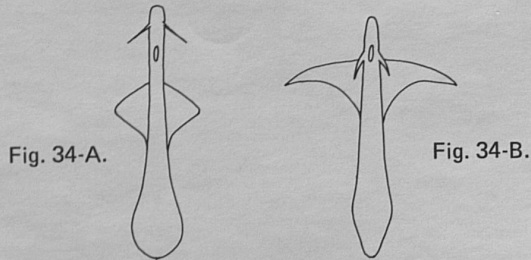


5. Aedeagal shaft with gonopore halfway between base
of processes and apex (Fig. 33a)
. *decimusquartus* (Schrank)
- Aedeagal shaft with gonopore near base of processes
(Fig. 33b) *snowi* Gillette and Baker

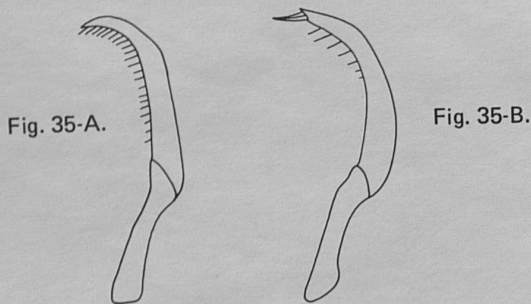


6. Aedeagal shaft with processes setaceous and definitely
apical to gonopore (Fig. 34a) *crataegi* Van Duzee

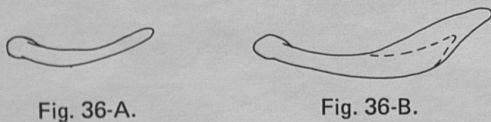
Aedeagal shaft with processes not setaceous and either basal to or opposite gonopore (Fig. 34b) 7



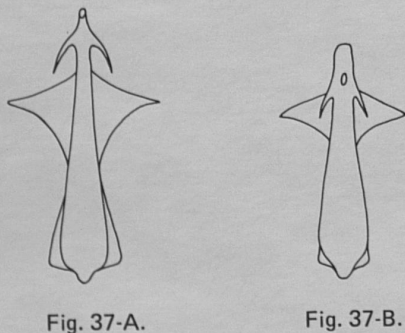
7. Style without large apical setae (Fig. 35a) 8
 Style with large apical setae (Fig. 35b) 9



8. Plates small, thin (Fig. 36a) *ramentosus* (Uhler)
 Plates large, thickened nearly to apex (Fig. 36b)
 *cognatus* Fieber



9. Aedeagal shaft tubular at apex (Fig. 37a) 10
 Aedeagal shaft flattened at apex (Fig. 37b) 12



10. Color uniformly yellow to green *pallidus* Fitch
 Color yellow, green or orange, with black or brown . . .
 markings 11

11. Forewing with cloudy brown apical area (Fig. 38a) . . .
 *duzeei* Provancher
 Forewing with black claval area (Fig. 38b)
 *suturalis* Fitch



Fig. 38-A. Fig. 38-B.

12. Eighth sternum deeply excavated, leaving lateral margins long and pointed (Fig. 39a)
 *apache* Ball and Parker
 Eighth sternum not deeply excavated, leaving lateral margin short and rounded (Fig. 39b) 13

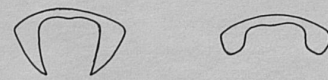


Fig. 39-A. Fig. 39-B.

13. Crown with two round black spots on margin (Fig. 40a) 14

 Crown without black spots, small (less than 5 mm), and uniformly pale green (Fig. 40b)
 *nervatus* Van Duzee

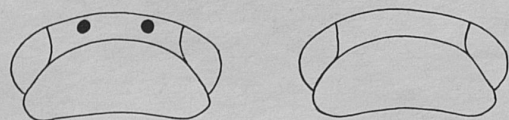


Fig. 40-A. Fig. 40-B.

14. Color uniformly light yellowish-brown, except for the two black spots on crown (Fig. 41a)
 *rotundens* DeLong and Caldwell
 Color brownish-fuscos with lighter markings on pronotum and forewings (Fig. 41b)
 *alternatus* Fitch

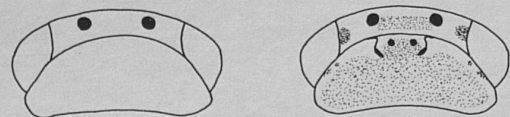


Fig. 41-A. Fig. 41-B.

Idiocerus moniliferae Osborn and Ball

(Figs. 42-44)

Idiocerus moniliferae Osborn and Ball 1898, p. 71.

Length of males 5.0-5.6 mm., females 4.7-5.7 mm.

Crown rounded, length shorter in middle than next to eyes. Male antennae without disc. Forewings long, flaring, slightly overlapping at apex, with a large appendix.

Color: Generally yellowish-brown, with yellow, brown or black markings. Crown yellowish-brown with a pair of large black spots near margin. Pronotum and scutellum yellowish-brown patterned with brown or black spots. Forewings smoky yellow brown with veins yellow interrupted with brown.

Male genitalia: Plate long, thickened nearly to apex.

Pygofer with nearly pointed apex. Style broad, expanded at apex, with fine setae along lateral margin. Aedeagus with shaft long, tubular, constricted at apex, apodeme bell-shaped at apex.

Female genitalia: Posterior margin of seventh sternum rounded with a shallow median emargination.

This species has been collected on cottonwood (*Populus deltoides* Marsh).

Parasites: None have been recorded for this species.

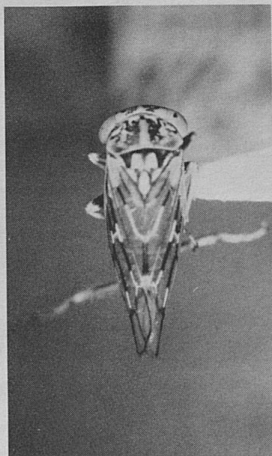


Fig. 42. — Dorsal view of male *I. moniliferae* Osborn and Ball.

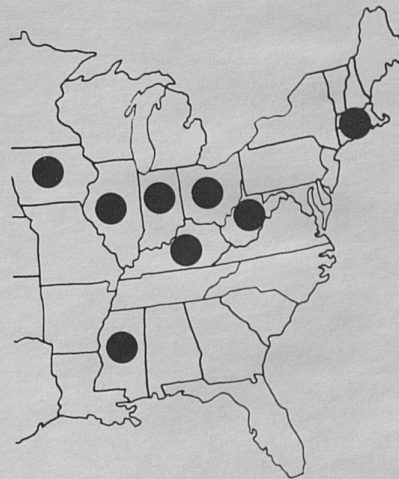


Fig. 43. — Eastern distribution of *I. moniliferae* Osborn and Ball.

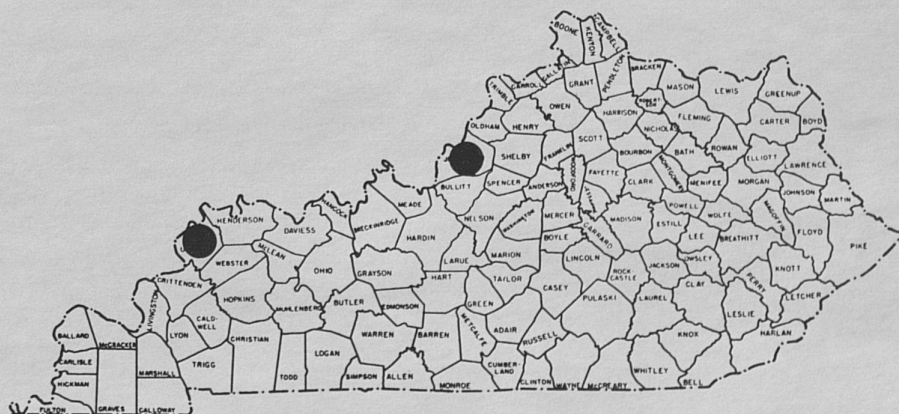


Fig. 44. — Kentucky distribution of *I. moniliferae* Osborn and Ball.

Idiocerus provancheri Van Duzee

(Figs. 45-47)

Idiocerus provancheri Van Duzee 1890, p. 111.

Length of males 4.8-5.7, females 5.1-6.2 mm.

Crown evenly rounded, same length in middle as next to eyes. Male antennae without disc. Forewings long, overlapping at apex, with a large appendix.

Color: Generally yellowish-brown with yellow markings, males darker brown to black. Crown yellowish-brown with a pair of large black spots near anterior margin. Pronotum and scutellum yellowish-brown to black. Forewings yellowish-brown to brown with a yellow streak at base of clavus and a clear area near apex of outer anteapical cell.

Male genitalia: Plate long, narrow, tuncate at apex.

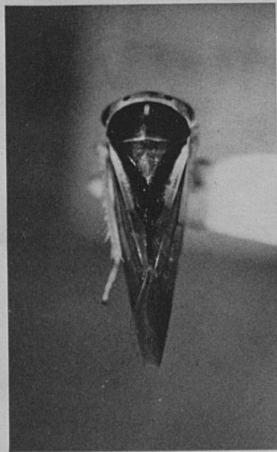


Fig. 45. — Dorsal view of male *I. provancheri* Van Duzee.

Style curved, pointed at apex, with some fine setae along lateral margin. Aedeagus with shaft long, tubular, dorso-ventrally flattened at apex, apodeme expanded at apex.

Female genitalia: Posterior margin of seventh sternum produced with a slight median emargination.

This species has been collected on hawthorn, apple, elm, spruce, and serviceberry. Specimens have been reared on apple (*Malus* sp.), hawthorn [*Crataegus phaenopyrum* (L.)], and serviceberry [*Amelanchier arborea* (Michx.)].

Parasites: None have been recorded for this species.

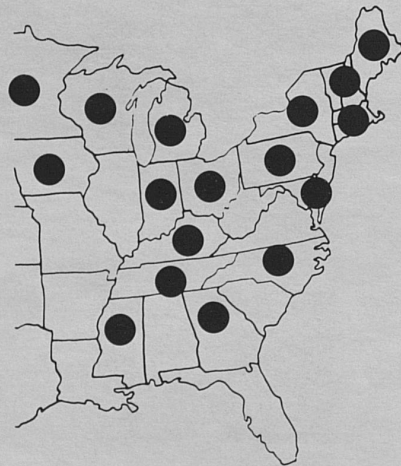


Fig. 46. — Eastern distribution of *I. provancheri* Van Duzee.

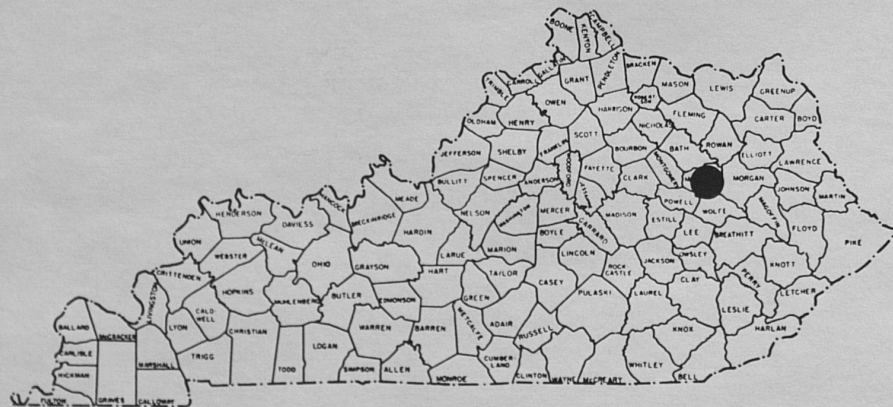


Fig. 47. — Kentucky distribution of *I. provancheri* Van Duzee.

Idiocerus decimusquartus (Schrank)

(Figs. 51-53)

Cicada decimaquarta Schrank 1776, p. 137.

Length of males 6.1-6.8 mm., females 6.7-7.7 mm.

Crown rounded, length slightly shorter in middle than next to eyes. Male antennae without disc. Forewings long, flaring, slightly overlapping at apex, with a moderate-sized appendix.

Color: Generally olive brown with brown and yellow markings. Crown olive brown with irregular brown markings. Pronotum and scutellum olive brown with brown to dark brown markings. Forewings olive brown, with veins yellow interrupted with brown.

Male genitalia: Plate long, narrow, expanded at apex. Pygofer with a rounded apex. Style narrow, with an

expanded apex, and fine setae along lateral margin. Aedeagus with shaft tubular, pointed at apex, with a pair of long parallel processes near middle, apodeme short, enlarged at apex.

Female genitalia: Posterior margin of seventh sternum rounded with a median emargination.

This species has been collected on lombardy poplar and cottonwood. Specimens have been reared on lombardy poplar (*Populus nigra* var. *italica* Muenchh.).

Parasites: None have been recorded for this species.

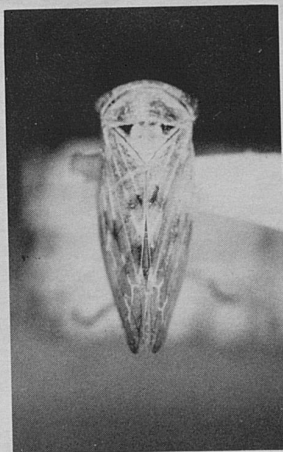


Fig. 51. — Dorsal view of male *I. decimusquartus* (Schrank).

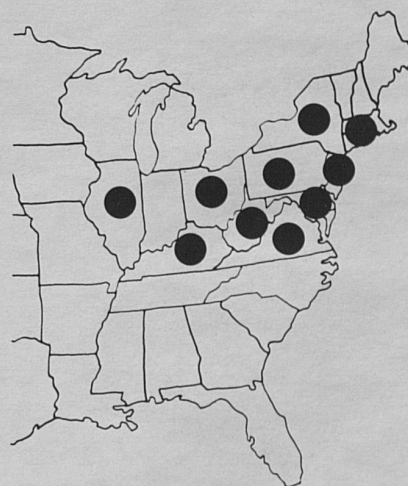


Fig. 52. — Eastern distribution of *I. decimusquartus* (Schrank).

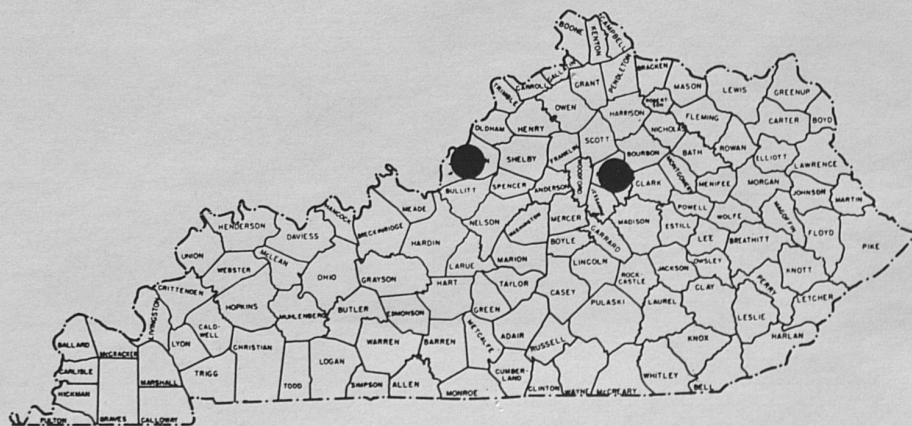


Fig. 53. — Kentucky distribution of *I. decimusquartus* (Schrank).

Idiocerus fitchi Van Duzee

(Figs. 48-50)

Idiocerus fitchi Van Duzee 1909, p. 383.

Length of males 5.4-5.8 mm., females 5.7-6.2 mm.

Crown rounded, nearly same length in middle as next to eyes. Male antennae without disc. Forewings long, overlapping at apex, with a large appendix.

Color: Generally brown with yellow and black markings, males somewhat darker. Crown yellowish-brown with a pair of large black spots near anterior margin. Pronotum yellowish-brown with dark brown spots across anterior margin, larger yellow markings across median. Scutellum yellowish-brown with triangles brown. Forewings brown with yellow spot at apex of clavus and another near apex of outer anteapical cell.

Male genitalia: Plate, long, narrow, rounded at apex. Pygofer with a slight median expansion, truncate at apex. Style curved, pointed at apex, with some fine setae along lateral margin. Aedeagus with shaft long, tubular, dorso-ventrally flattened at apex, apodeme expanded at apex.

Female genitalia: Posterior margin of seventh sternum evenly produced.

This species has been collected on hawthorn, apple, and elm, and has been considered an economic species on apple.

Parasites: None have been recorded for this species.

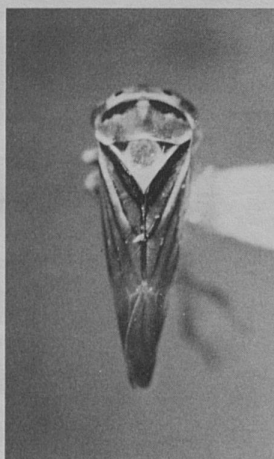


Fig. 48. — Dorsal view of male *I. fitchi* Van Duzee.

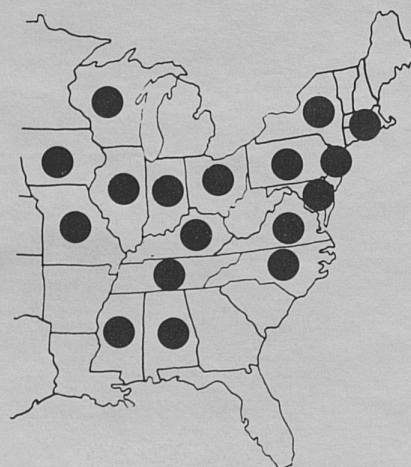


Fig. 49. — Eastern distribution of *I. fitchi* Van Duzee.

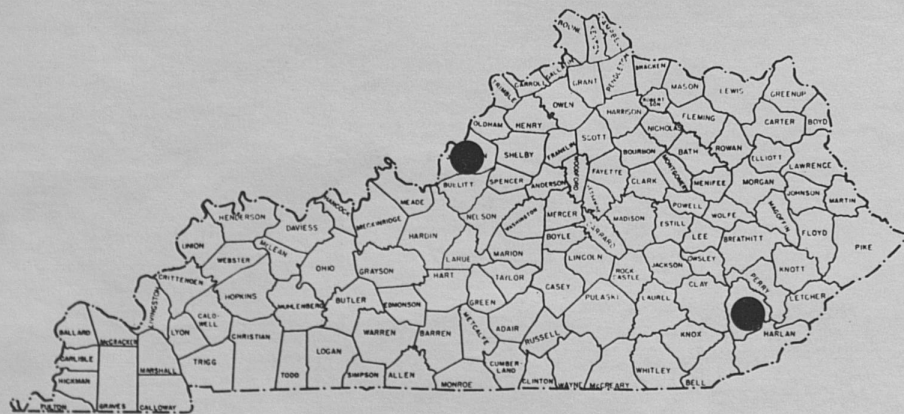


Fig. 50. — Kentucky distribution of *I. fitchi* Van Duzee.

Idiocerus snowi Gillette and Baker
(Figs. 54-56)

Idiocerus snowi Gillette and Baker 1895, p. 79.

Length of male 5.3-6.0 mm., female 5.6-6.5 mm.

This species is divided into two subspecies. Only one occurs in the eastern states, *I. snowi raphus* Freytag (1965).

Crown rounded, same length in middle as near eyes. Male antennae without disc. Forewings long, overlapping with a large appendix.

Color: Generally yellowish-green with black or smoky brown markings. Crown yellowish-green with a pair of large black spots near anterior margin. Pronotum and scutellum yellowish-green. Forewings yellowish-green with a smoky brown sutural margin and apex.

Male genitalia: Plate long, narrow throughout its

length. Pygofer slightly pointed at apex. Style narrow, pointed at apex, with a row of short setae on lateral margin. Aedeagus with shaft tubular, pointed at apex, bearing a pair of lateral processes near middle, apodeme greatly expanded at apex.

Female genitalia: Posterior margin of seventh sternum evenly rounded with a median emargination.

This subspecies has been collected on willows and poplars. It has been reared on willow (*Salix nigra* Marsh).

Parasites: Specimens have been collected with dryinids.

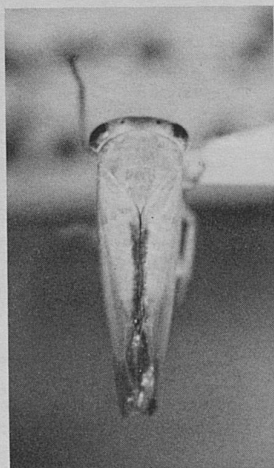


Fig. 54. — Dorsal view of male *I. snowi* Gillette and Baker.

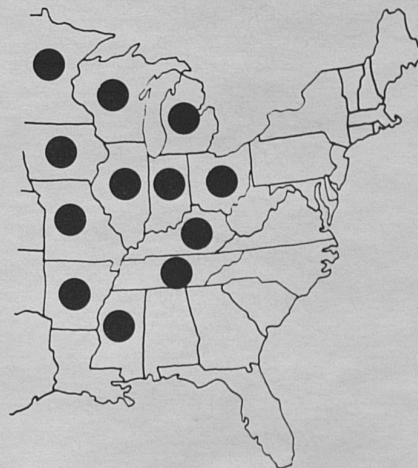


Fig. 55. — Eastern distribution of *I. snowi* Gillette and Baker.

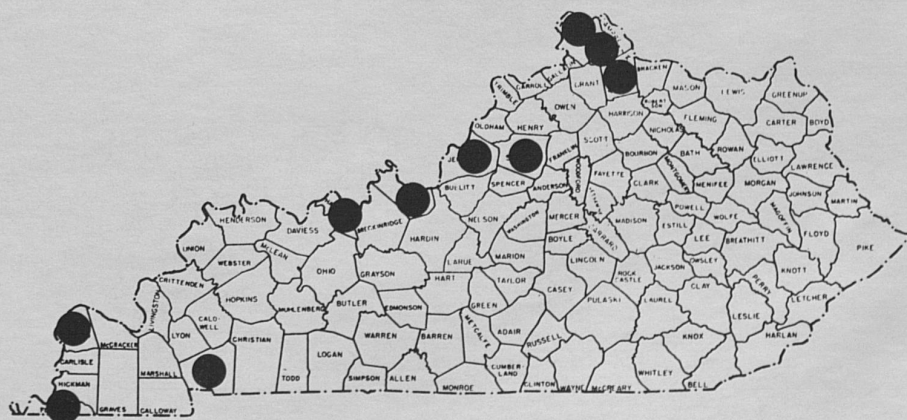


Fig. 56. — Kentucky distribution of *I. snowi* Gillette and Baker.

Idiocerus crataegi Van Duzee

(Figs. 57-59)

Idiocerus crataegi Van Duzee 1890, p. 110.

Length of males 4.7-5.2 mm., females 5.2-5.7 mm.

Crown rounded, nearly same length in middle as next to eyes, male antennae without disc. Forewings long, slightly flaring, overlapping at apex, with a large appendix.

Color: Generally yellow with brown or black markings. Crown yellow with a pair of large black spots near anterior margin. Pronotum yellow with a pair of black triangular spots near anterior margin. Scutellum yellowish-brown with triangles black. Forewings smoky yellow with brown veins.

Male genitalia: Plate short, narrow, with many long

setae. Pygofer short, rounded. Style slightly curved, blunt at apex. Aedeagus with shaft long, narrow, with a pair of thin lateral processes subapically, apodeme expanded at apex.

Female genitalia: Posterior margin of seventh sternum produced with a slight median emargination.

This species occurs in most states north of Kentucky and may also be collected within the state. It has been collected on hawthorn and aspen.

Parasites: None have been recorded for this species.

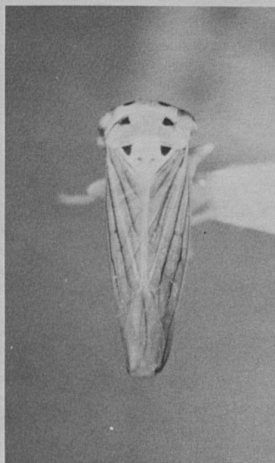


Fig. 57. — Dorsal view of male *I. crataegi* Van Duzee.

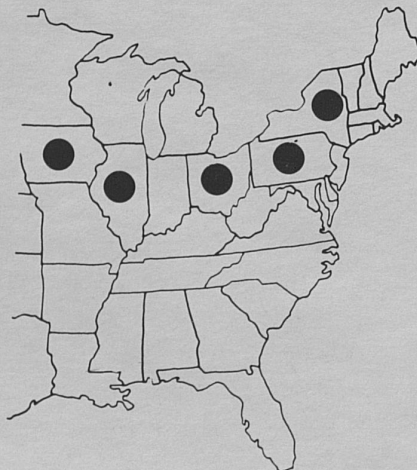


Fig. 58. — Eastern distribution of *I. crataegi* Van Duzee.



Fig. 59. — Kentucky distribution of *I. crataegi* Van Duzee.

Idiocerus ramentosus (Uhler)

(Figs. 60-62)

Bythoscopus ramentosus Uhler, 1877, p. 465.

Length of male 4.8-5.8 mm., female 5.0-6.2 mm.

Crown rounded, slightly shorter in length at middle than near eyes. Male antennae with a small disc at apex. Forewings long, overlapping, with a large appendix.

Color: Generally yellowish-brown with black, brown, and yellow markings. Crown yellowish-brown with a pair of large black spots near margin. Male antennal disc black. Pronotum and scutellum yellowish-brown. Forewings yellowish-brown, somewhat smoky, with veins brown interrupted with yellow.

Male genitalia: Plate short, narrow throughout its

length. Pygofer small, rounded at apex. Style narrow, pointed at apex, with a row of fine setae on lateral margin. Aedeagus with shaft tubular, pointed at apex, with a pair of subapical processes, apodeme only slightly expanded at apex.

Female genitalia: Posterior margin of seventh sternum produced, rounded, with a median emargination.

This species has been collected on willows, in this area on *Salix nigra* Marsh.

Parasites: None have been recorded for this species.

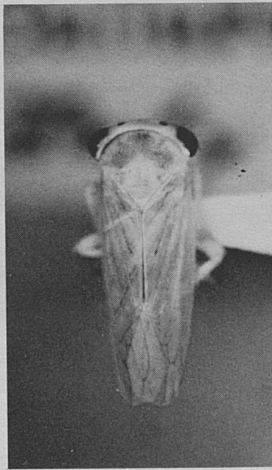


Fig. 60. — Dorsal view of male *I. ramentosus* (Uhler).

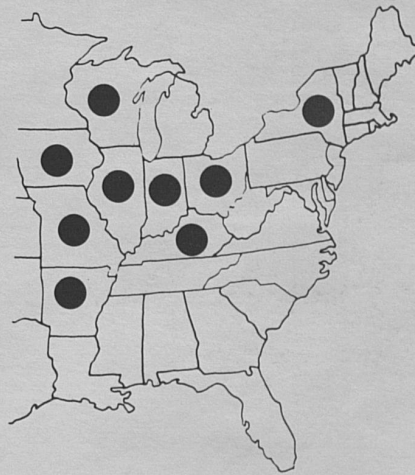


Fig. 61. — Eastern distribution of *I. ramentosus* (Uhler).

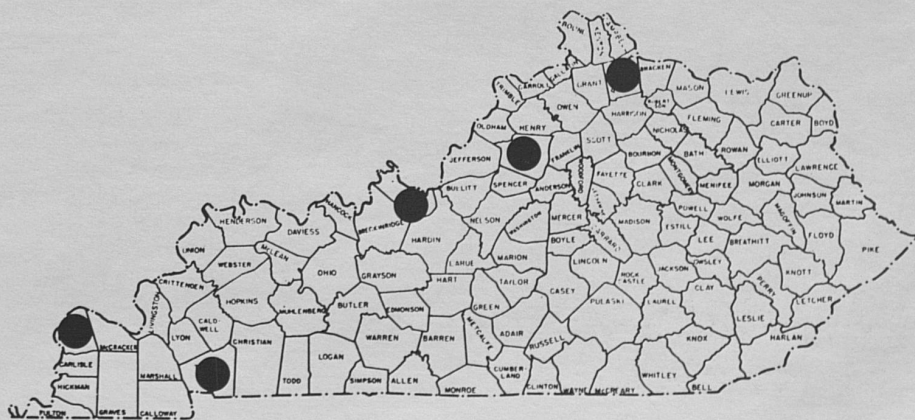


Fig. 62. — Kentucky distribution of *I. ramentosus* (Uhler).

Idiocerus cognatus Fieber
(Figs. 63-65)

Idiocerus cognatus Fieber 1868, p. 455.

Length of males 4.5-4.8 mm., females 4.9-5.3 mm.

Crown rounded, shorter length in middle than near eyes. Male antennae without disc. Forewings long, overlapping, with a large appendix.

Color: Generally grayish-yellow with black and brown markings. Crown grayish-yellow, with or without a pair of black spots near margin. Pronotum and scutellum grayish-yellow mottled with brown. Forewings grayish-yellow, banded behind middle with brown, apical veins brown.

Male genitalia: Plate short, thickened nearly to apex.

Pygofer short, pointed at apex. Style short, nearly pointed at apex, with a row of setae on lateral margin. Aedeagus with shaft tubular, flattened at apex, bearing a pair of subapical processes, apodeme expanded at apex.

Female genitalia: Posterior margin of seventh sternum rounded with a very slight median emargination.

This species has been collected on white poplar (*Populus alba* L.), and it should occur in Kentucky as this species of poplar is common.

Parasites: None have been recorded for this species.



Fig. 63. — Dorsal view of male *I. cognatus* Fieber.

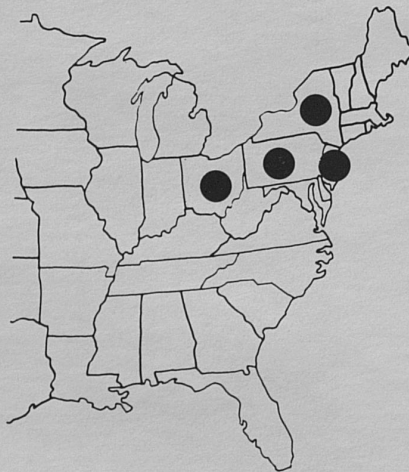


Fig. 64. — Eastern distribution of *I. cognatus* Fieber.

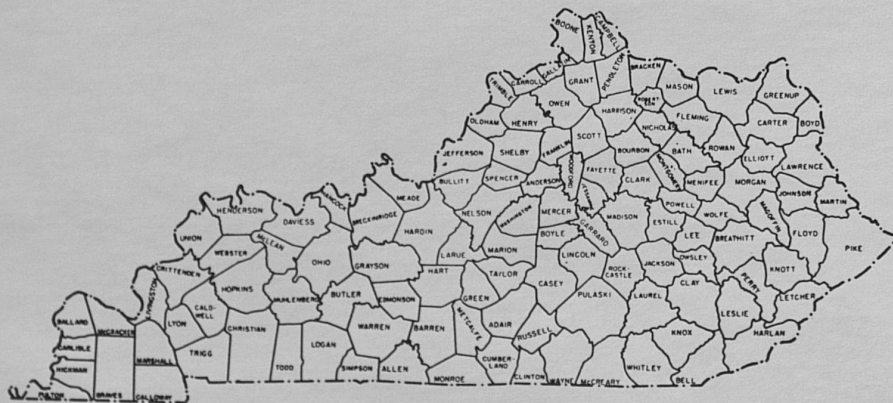


Fig. 65. — Kentucky distribution of *I. cognatus* Fieber.

Idiocerus pallidus Fitch
(Figs. 66-68)

Idiocerus pallidus Fitch 1851, p. 59.

Length of males 6.0-6.4 mm., females 6.6-7.0 mm.

Crown rounded, same length in middle as near eyes. Male antennae with an oval disc at apex. Forewings long, overlapping, with a large appendix.

Color: Generally yellowish-green to green, without markings. Male antennal disc black.

Male genitalia: Plate long, nearly same width to slightly pointed apex. Pygofer with apex pointed. Style short, pointed at apex, with stout setae subapically on

lateral margin. Aedeagus with shaft tubular, bearing a pair of lateral subapical processes, apodeme enlarged at apex.

Female genitalia: Median produced and truncate.

This species has been collected on cottonwood and willows. It has been reared on willow (*Salix nigra* Marsh).

Parasites: One female has been collected with a mermithid nematode.

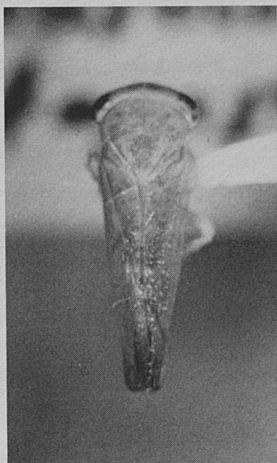


Fig. 66. — Dorsal view of male *I. pallidus* Fitch.

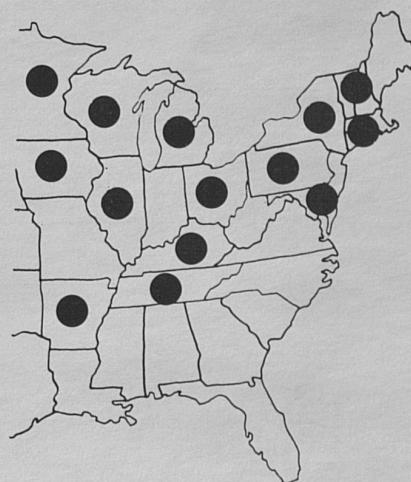


Fig. 67. — Eastern distribution of *I. pallidus* Fitch.

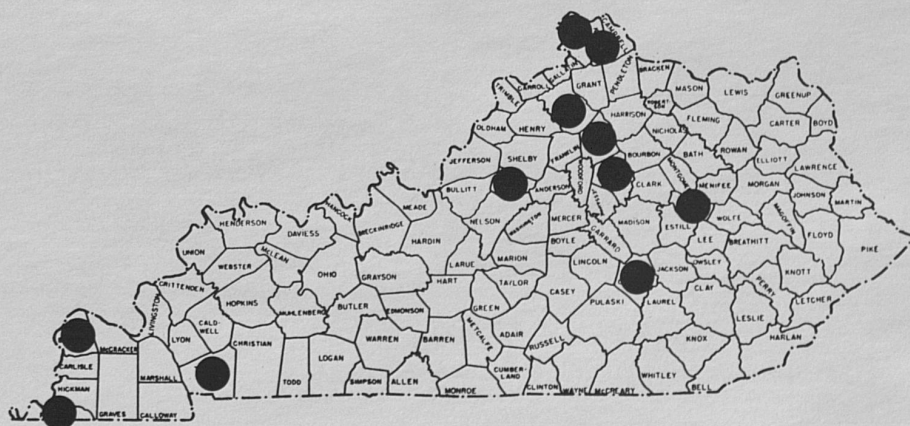


Fig. 68. — Kentucky distribution of *I. pallidus* Fitch.

Idiocerus duzei Provancher

(Figs. 69-71)

Idiocerus duzei Provancher 1889, p. 290.

Length of males 5.9-6.5 mm., females 6.9-7.5 mm.

Crown rounded, same length in middle as near eyes. Male antennae with a small oval disc at apex. Forewings long, overlapping, with a large appendix.

Color: Generally yellowish-orange with orange and brown markings. Crown yellowish-orange, with a transverse orange band on margin across face. Male antennal disc black. Pronotum basal section and veins orange, apical cells and appendix smoky brown.

Male genitalia: Plate long, slightly expanded near

apex. Pygofer bluntly pointed at apex. Style stout, pointed at apex, with stout setae subapically on lateral margin. Aedeagus with shaft tubular, bearing a pair of lateral subapical processes, apodeme enlarged at apex.

Female genitalia: Posterior margin of seventh sternum rounded with median produced and rounded.

This species has been collected on poplars and occurs primarily on cottonwood (*Populus deltoides* Marsh).

Parasites: None have been recorded for this species.

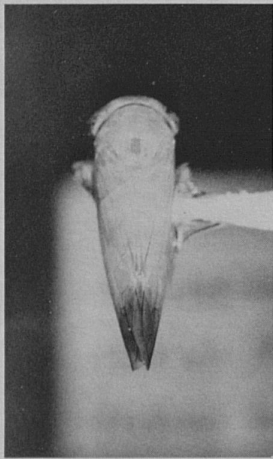


Fig. 69. — Dorsal view of male *I. duzei* Provancher.

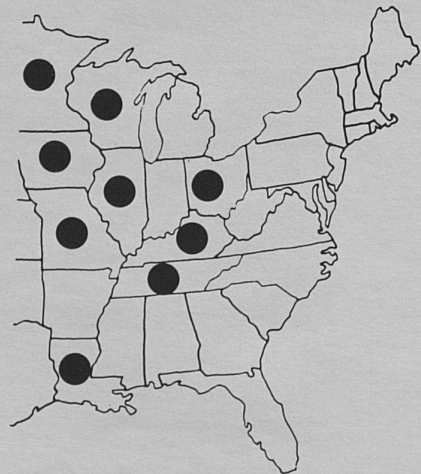


Fig. 70. — Eastern distribution of *I. duzei* Provancher.



Fig. 71. — Kentucky distribution of *I. duzei* Provancher.

Idiocerus suturalis Fitch

(Figs. 72-74)

Idiocerus suturalis Fitch 1851, p. 59.

Length of males 5.1-5.5 mm., females 5.7-6.3 mm.

Crown evenly rounded, same length in middle as near eyes. Male antennae with an oval disc at apex. Forewings long, overlapping, with a very large appendix.

Color: Generally yellow to yellowish-orange with brown to dark brown markings. Crown uniformly yellow. Male antennal disc black. Pronotum and scutellum brown margined with yellow anteriorly. Forewings yellow to yellowish-orange with clavus brown, sometimes interrupted with yellow, appendix smoky brown.

Male genitalia: Plate long, slightly expanded at apex.

Pygofer bluntly pointed at apex. Style short, stout, pointed at apex, with stout setac subapically on lateral margin. Aedeagus with shaft tubular, bearing a pair of lateral sub-apical processes, apodeme enlarged at apex.

Female genitalia: Posterior margin of seventh sternum angled to a produced truncate median.

This species has been collected on aspen. No specimens have been collected in Kentucky, but it seems likely to occur further south than present distribution indicates.

Parasites: None have been recorded for this species.

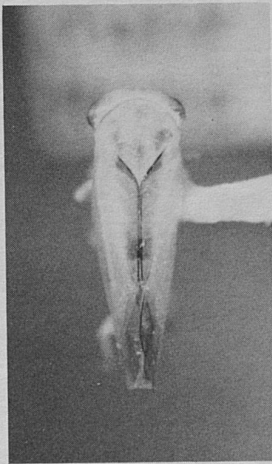


Fig. 72. — Dorsal view of male *I. suturalis* Fitch.

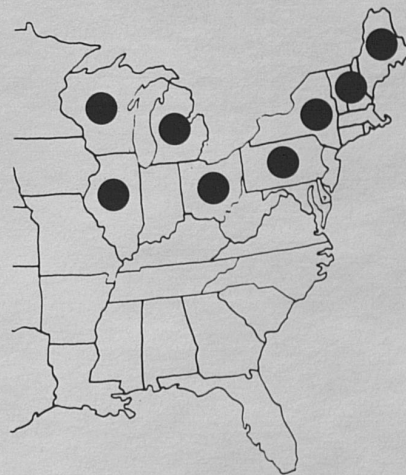


Fig. 73. — Eastern distribution of *I. suturalis* Fitch.

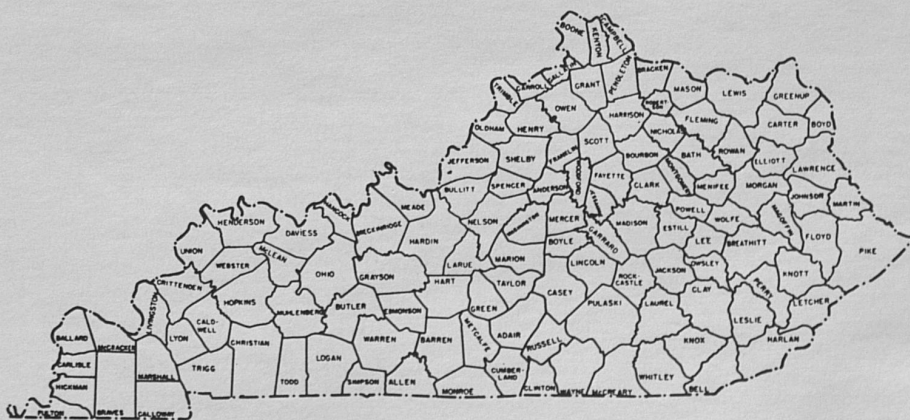


Fig. 74. — Kentucky distribution of *I. suturalis* Fitch.

Idiocerus apache Ball and Parker
(Figs. 75-77)

Idiocerus apache Ball and Parker 1946, p. 76.

Length of males 4.6-5.2 mm., females 4.7-5.2 mm.

Crown rounded, same length in middle as near eyes. Male antennae with a rounded disc at apex. Forewings long, overlapping, with a large appendix. Male eighth sternum with lateral margins sharply pointed.

Color: Generally yellowish-brown with yellow, brown, and black markings. Crown yellowish-brown with a pair of small black spots near margin. Male antennal disc black. Pronotum and scutellum yellowish-brown with brown to dark brown markings. Forewings smoky yellowish-brown, veins brown interrupted with yellow, apex of second clavel bein with a large yellow spot.

Male genitalia: Plate long, narrow, with a blunt apex.

Pygofer with a pointed apex. Style angled near pointed apex, with stout setac subapically on lateral margin. Aedeagus with shaft tubular but flattened ventrally at apex, bearing a pair of lateral subapical processes, apodeme greatly expanded at apex.

Female genitalia: Posterior margin of seventh sternum. Truncate with slight indentations on each side.

This species has been collected primarily on junipers and willows.

Parasites: This species is commonly parasitized by halictophagids.

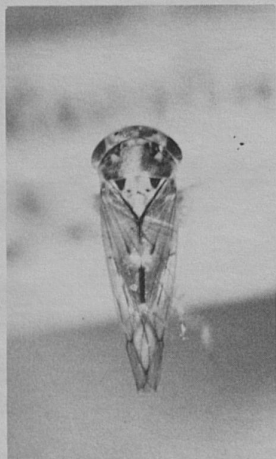


Fig. 75. — Dorsal view of male *I. apache* Ball and Parker.

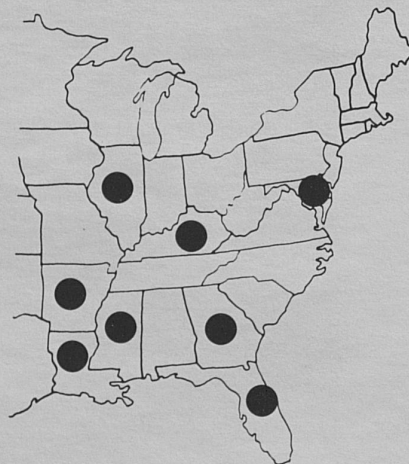


Fig. 76. — Eastern distribution of *I. apache* Ball and Parker.

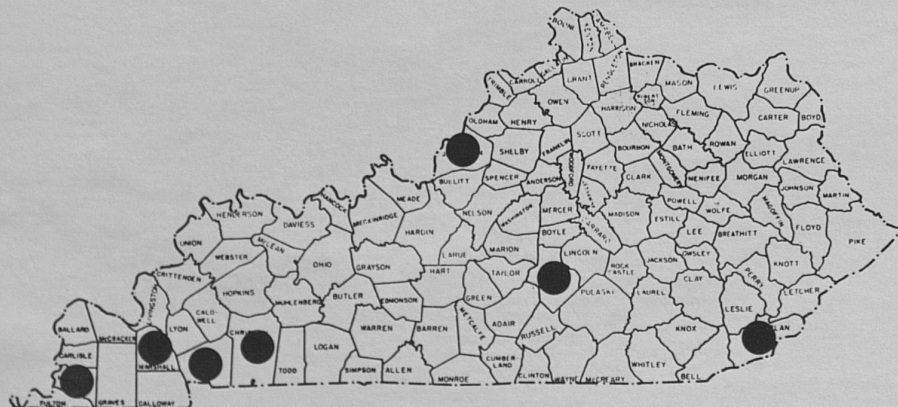


Fig. 77. — Kentucky distribution of *I. apache* Ball and Parker.

Idiocerus nervatus Van Duzee
(Figs. 78-80)

Idiocerus nervatus Van Duzee 1894, p. 205.
Length of males 4.4-5.0 mm., females 4.8-5.3 mm.

Crown rounded, same length in middle as near eyes. Male antennae with small round disc at apex. Forewings long, overlapping, with a large appendix.

Color: Generally green fading to yellow. Crown, pronotum and scutellum green. Male antennal disc black. Forewings green, nearly transparent, appendix usually smoky brown.

Male genitalia: Plate short, wider at apex. Pygofer with bluntly pointed apex. Style short, narrowing to a

pointed apex, with several subapical large setae on lateral margin. Aedeagus with shaft tubular, flattened ventrally at apex, bearing a pair of short lateral subapical processes, apodeme expanded at apex.

Female genitalia: Posterior margin of seventh sternum rounded with a wide shallow emargination.

This species has been collected in this area on poplars, willows, and junipers.

Parasites: None have been recorded for this species.



Fig. 78. — Dorsal view of male *I. nervatus* Van Duzee.

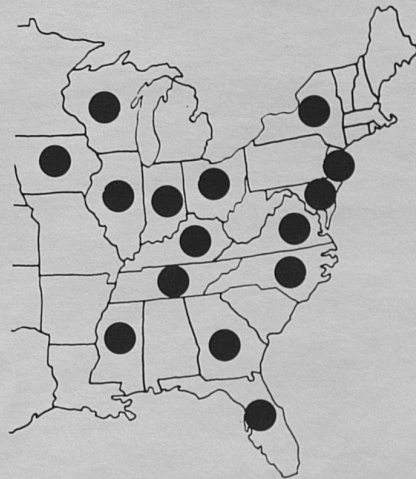


Fig. 79. — Eastern distribution of *I. nervatus* Van Duzee.

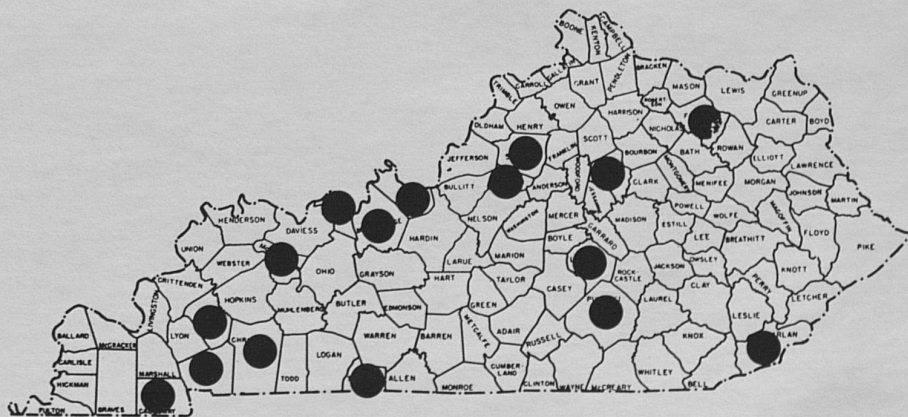


Fig. 80. — Kentucky distribution of *I. nervatus* Van Duzee.

Idiocerus rotundens DeLong and Caldwell
(Figs. 81-83)

Idiocerus rotundens DeLong and Caldwell 1937, p. 162.
Length of males 4.5-4.8 mm., females 4.7-5.1 mm.

Crown evenly rounded, same length in middle as near eyes. Male antennae short with a large round disc at apex. Forewings long, overlapping, with a large appendix.

Color: Generally light yellowish-brown, marked with black, brown and yellow. Crown light yellowish-brown with a pair of prominent black spots near margin. Male antennal disc dark brown, marked with yellow at apex and base. Pronotum and Scutellum yellowish-brown, spotted with yellow and brown. Forewings yellowish-brown with brown veins interrupted with yellow.

Male genitalia: Plate long, wider near apex. Pygofer

bluntly pointed at apex. Style long, narrowing to a pointed apex, with several subapical large setae on lateral margin. Aedeagus with shaft tubular, flattened ventrally at apex, bearing a pair of short lateral processes, apodeme expanded at apex.

Female genitalia: Posterior margin of seventh sternum rounded, with a median emargination.

This species has been collected on willows and junipers.

Parasites: Specimens have been collected with both halictophagids and dryinids.



Fig. 81. — Dorsal view of male *I. rotundens* DeLong and Caldwell.

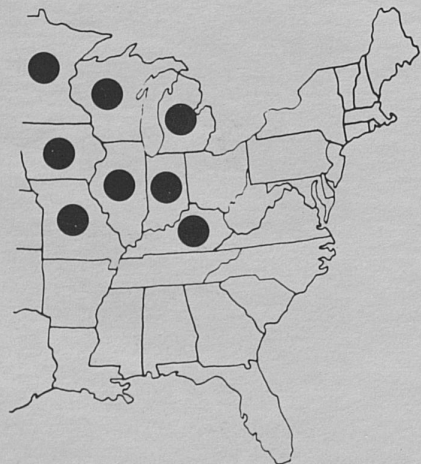


Fig. 82. — Eastern distribution of *I. rotundens* DeLong and Caldwell.

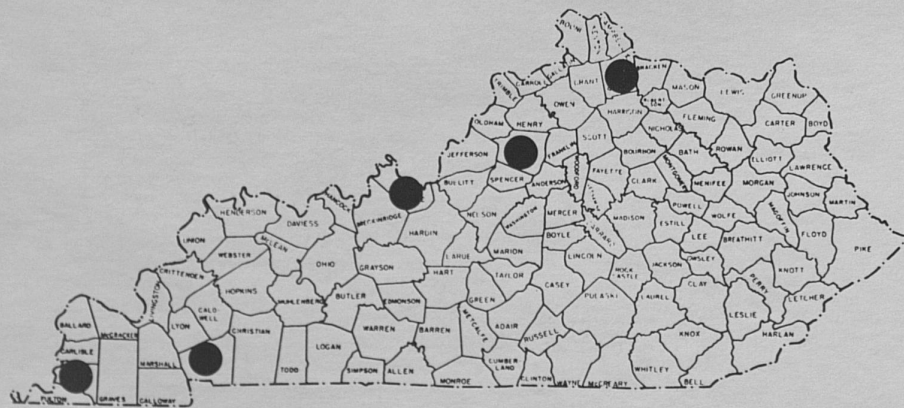


Fig. 83. — Kentucky distribution of *I. rotundens* DeLong and Caldwell.

Idiocerus alternatus Fitch
(Figs. 84-86)

Idiocerus alternatus Fitch 1851, p. 59.

Length of males 4.8-5.1 mm., females 5.1-5.5 mm.

Crown broadly rounded, same length in middle as near eyes. Male antennae with a small round disc at apex. Forewings long, overlapping, with a large appendix.

Color: Generally yellowish-brown, patterned with yellow, brown and black. Crown yellowish-brown with a small pair of black spots near margin; and usually a brown spot bordering each eye. Male antennal disc black. Pronotum and scutellum yellowish-brown heavily mottled with brown and black. Forewings yellow, nearly transparent, with dark brown veins interrupted with yellow.

Male genitalia: Plate short, slightly wider than apex. Pygofer with a pointed apex. Style short, nearly pointed at

apex, with several subapical large setae on lateral margin. Aedeagus with shaft tubular, flattened ventrally at apex, bearing a pair of short lateral processes, apodeme expanded at apex.

Female genitalia: Posterior margin of seventh sternum concavely rounded on each side of a median emargination.

This species has been collected on willows and junipers. In this area it occurs primarily on willow (*Salix nigra* Marsh).

Parasites: Specimens have been collected with dryinids.

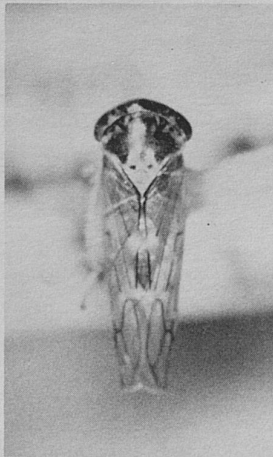


Fig. 84. — Dorsal view of male *I. alternatus* Fitch.

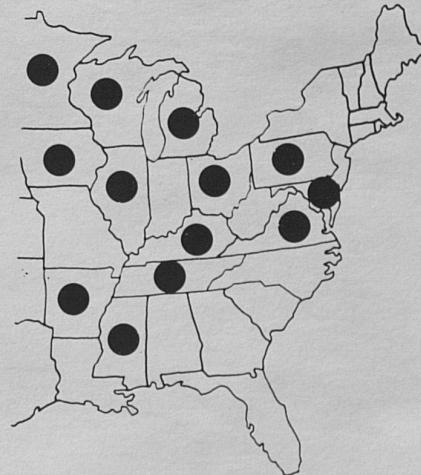


Fig. 85. — Eastern distribution of *I. alternatus* Fitch.

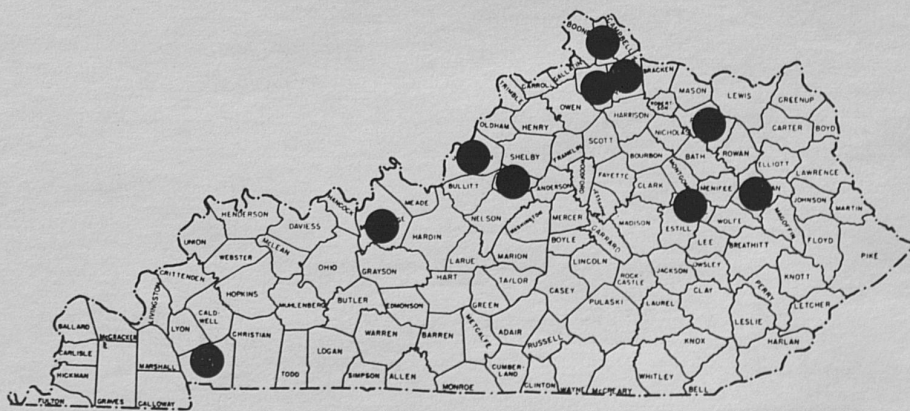


Fig. 86. — Kentucky distribution of *I. alternatus* Fitch.

SUBFAMILY MACROPSINAE

The leafhoppers of this subfamily are somewhat wedge-shaped, ocelli on the face, femoral setal formula 2-1, forewings longer than abdomen and without an appendix. The host plants of this subfamily are trees and shrubs.

Three genera of this subfamily occur in the Nearctic region, *Oncopsis* Burmeister, *Nanopsis* Freytag, and *Macropsis* Lewis. All three genera occur in Kentucky.

KEY TO THE EASTERN GENERA OF MACROPSINAE

- 1. Pronotal striae transverse (Fig. 87a) *Oncopsis* Burmeister
- Pronotal striae usually oblique (Fig. 87b), or lacking 2

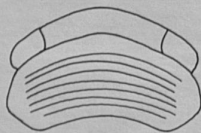


Fig. 87-A.

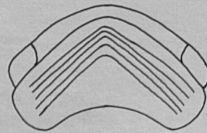


Fig. 87-B.

- 2. Pronotal striae lacking (Fig. 88a) . . . *Nanopsis* Freytag
- Pronotal striae oblique (Fig. 88b). . . *Macropsis* Lewis

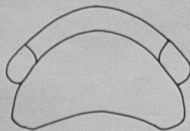


Fig. 88-A.

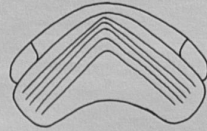


Fig. 88-B.

Oncopsis Burmeister

This genus is characterized by having the crown short, broad, and rounded. Face short and broad, ocelli closer to eyes than to middle. Pronotum with striae transverse. Pygofer of male without a spine. Various colors from yellow to dark black. Most species are sexually dimorphic in

size and color. The host plants in Kentucky are probably birch, alder, and wild plum. A revision of this genus is being done at the present time by Dr. K. G. A. Hamilton; the included species are based on the last revision done by Beirne (1951).

KEY TO THE SPECIES OF *ONCOPSIS* FOR THE KENTUCKY AREA

- 1. Female seventh sternum short, with a broad shallow notch (Fig. 89a) *nigrinasi* (Fitch)
- Female seventh sternum long, variously notched . . . (Fig. 89b) 2



Fig. 89-A.



Fig. 89-B.

- 2. Female seventh sternum with a large U-shaped notch (Fig. 90a) *variabilis* (Fitch)
- Female seventh sternum without a U-shaped notch (Fig. 90b) 3

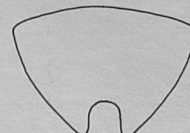


Fig. 90-A.

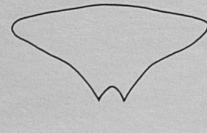


Fig. 90-B.

- 3. Female seventh sternum with a shallow notch (Fig. 91a) *sobria* (Walker)
- Female seventh sternum with distinct projections on each side of median notch (Fig. 91b) *fitchi* Van Duzee



Fig. 91-A.



Fig. 91-B.

Oncopsis nigrinasi (Fitch)
(Figs. 92-94)

Athysanus nigrinasi Fitch 1851, p. 61.

Length of male 3.4-4.2 mm., female 4.0-4.4 mm.

Crown short, nearly same width in middle as next to eyes. Pronotum three times longer than crown in middle. Forewings long, narrow, without appendix.

Color: Generally yellowish-brown to dark brown, with a dark brown to black face. Male crown and face appearing transversely banded with yellow above ocelli. Some specimens even appear banded on the forewings with brown, or spotted with white.

Male genitalia: Plate short, extending to a rounded

apex. Pygofer truncate, without processes. Style long, nearly same width to a dorsally somewhat pointed apex.

Female genitalia: Seventh sternum short, broad, with a broad shallow notch across middle.

This species has not been collected in Kentucky but should occur in this area. Host plants are reported to be beech, hornbeam, viburnum, and hazel.

Parasites: None have been recorded for this species.

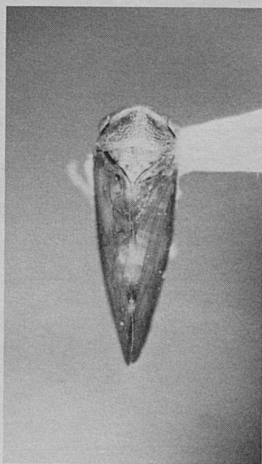


Fig. 92. — Dorsal view of male *O. nigrinasi* (Fitch).

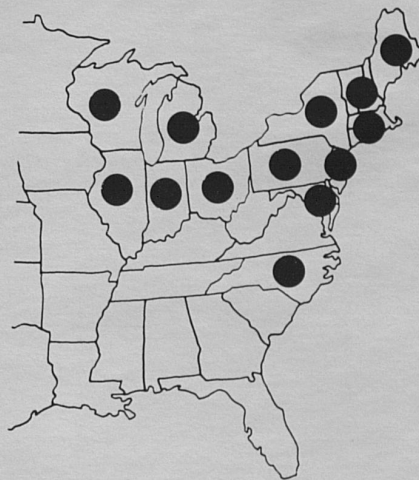


Fig. 93. — Eastern distribution of *O. nigrinasi* (Fitch).

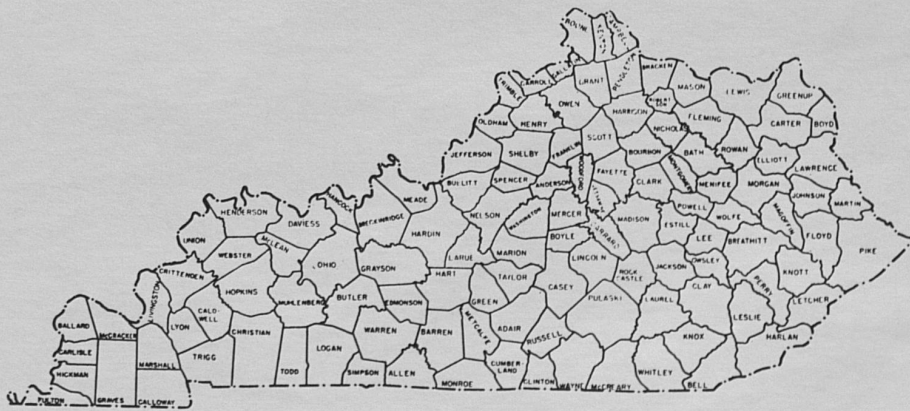


Fig. 94. — Kentucky distribution of *O. nigrinasi* (Fitch).

Oncopsis variabilis (Fitch)
(Figs. 95-97)

Athysanus variabilis Fitch 1851, p. 60.

Length of male 4.7-4.9 mm., female 4.8-5.1 mm.

Crown short, nearly same width in middle as near eyes. Pronotum about three times longer than crown in middle. Forewings long, narrow, without an appendix.

Color: Generally yellowish-brown to dark brown. Male usually darker brown with forewing hyaline and spotted with brown. Some males have a transverse yellow band between ocelli and yellow face. Females usually lighter, sometimes yellow with a dark brown band along claval suture of forewing.

Male genitalia: Plate short, extending to a nearly rounded apex. Pygofer truncate, without processes. Style short, expanded in middle, dorsally pointed at apex.

Female genitalia: Seventh sternum long, produced with a large U-shaped emargination in middle.

This species has not been collected in Kentucky, but should occur in this area. Host plants are reported to be birch and alder.

Parasites: None have been reported for this species.

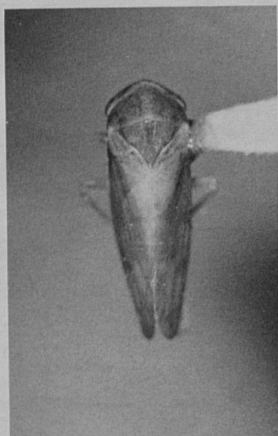


Fig. 95. — Dorsal view of female *O. variabilis* (Fitch).

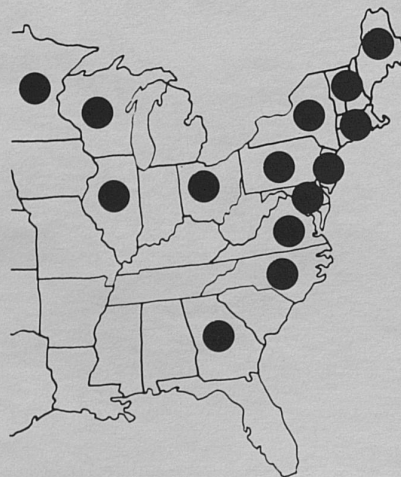


Fig. 96. — Eastern distribution of *O. variabilis* (Fitch).

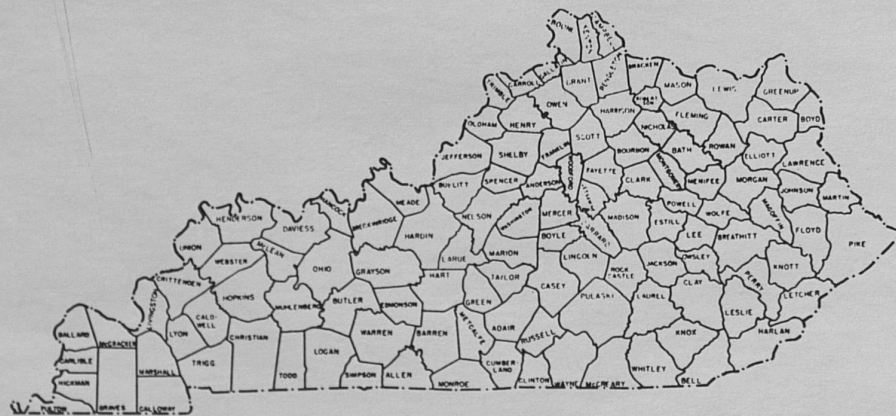


Fig. 97. — Kentucky distribution of *O. variabilis* (Fitch).

Oncopsis sobria (Walker)
(Figs. 98-100)

Bythoscopus sobrius Walker 1851, p. 874.

Length of male 4.7-5 mm., female 4.9-5.2 mm.

Crown short, nearly same width in middle as near eyes. Pronotum about three times longer than crown. Forewings long, narrow, without an appendix.

Color: Generally yellowish-brown to reddish-brown. Male reddish brown with forewings dark brown. Usually with yellow and black alternating along commissure. Female lighter, usually yellow underneath.

Male genitalia: Plate short, rounded at apex. Pygofer truncate, without processes. Style short, slightly bent near middle, with a dorsally produced pointed apex.

Female genitalia: Seventh sternum roundedly produced with a shallow median emargination.

This species is reported from birch and hazelnut.

Parasites: None have been reported for this species.



Fig. 98. — Dorsal view of male *O. sobria* (Walker).

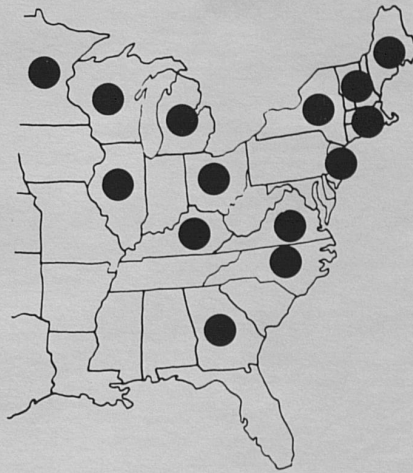


Fig. 99. — Eastern distribution of *O. sobria* (Walker).



Fig. 100. — Kentucky distribution of *O. sobria* (Walker).

Oncopsis fitchi Van Duzee
(Figs. 101-103)

Oncopsis fitchi Van Duzee 1969, p. 65.

(New name for *Athysanus fenestratus* Fitch 1851, p. 60, name preoccupied)

Length of male 4.0-4.4 mm., female 4.3-4.6 mm.

Crown short, same length in middle as near eyes. Pronotum three times longer than crown in middle. Forewings long, narrow, without appendix.

Color: Generally yellowish-brown to dark brown. Male usually dull yellowish-brown with a transverse dark brown band along margin of crown and another between eyes. Forewings hyaline spotted with brown. Females similar to males.

Male genitalia: Plate short, rounded at apex. Pygofer

truncate, without processes. Style short, bent near middle, with a dorsally produced, sharply pointed apex.

Female genitalia: Seventh sternum somewhat triangular with a median apical notch bordered on each side by a short tooth.

This species has not been collected in Kentucky but should occur in this area. Host plants are reported to be birch, alder, and wild plum.

Parasites: None have been reported for this species.



Fig. 101. — Dorsal view of male *O. fitchi* Van Duzee.

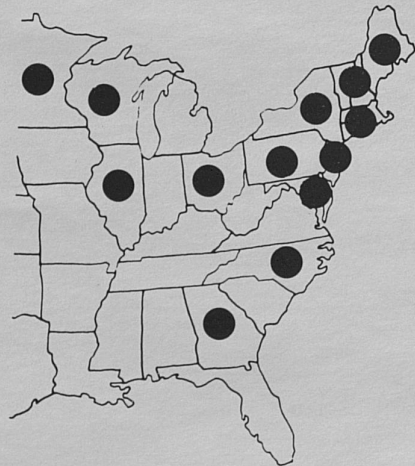


Fig. 102. — Eastern distribution of *O. fitchi* Van Duzee.

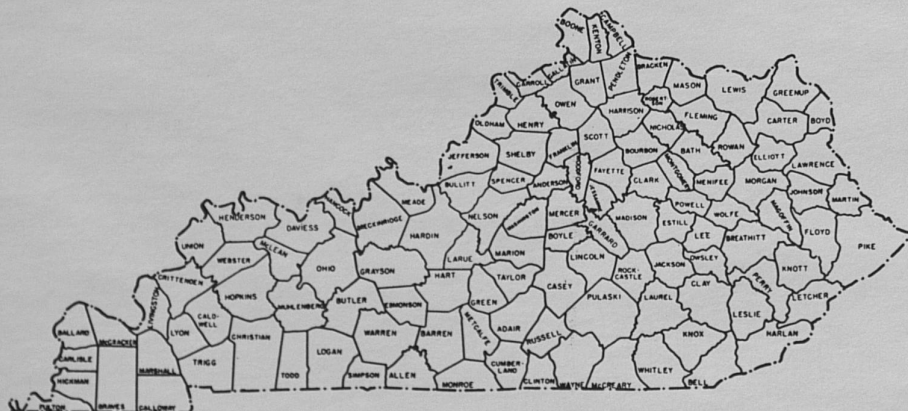


Fig. 103. — Kentucky distribution of *O. fitchi* Van Duzee.

Nanopsis Freytag

This genus is characterized by having the crown short, about same length in middle as near eyes, broad, and rounded. Face short and broad, ocelli closer to eyes than to middle. Pronotum with striae lacking, heavily punctured. Pygofer of male

with spines along ventral margin. Various colored from yellowish-brown to brown. Sexually dimorphic for both size and color. Host plant in Kentucky is black walnut. This genus was set up by Freytag (1974) for the only North American species, *Nanopsis verticis* (Say).

Nanopsis verticis (Say)

(Figs. 104-106)

Jassus verticis Say 1831, p. 308.

Length of males 3.5-4.0 mm., females 3.8-4.5 mm.

Crown short, rounded, same length in middle as near eyes. Pronotum three times longer than crown in middle. Forewings long, flaring, without appendix.

Color: Variable but generally dark brown in males with a white spot on costa and another on apical veins. Females lighter, usually yellowish-brown to brown.

Male genitalia: Plate short, somewhat expanded near middle. Pygofer truncate, with a pair of short processes or

spines near middle on each side. Style short, bluntly rounded at apex. Anal collar simple. Aedeagus short, broad at base, tubular at apex.

Female genitalia: Seventh sternum nearly square with a distinct but small u-shaped median emargination.

This species has been collected from black walnut (*Juglans nigra* L.).

Parasites: None have been reported for this species.



Fig. 104. —Dorsal view of male *N. verticis* (Say).

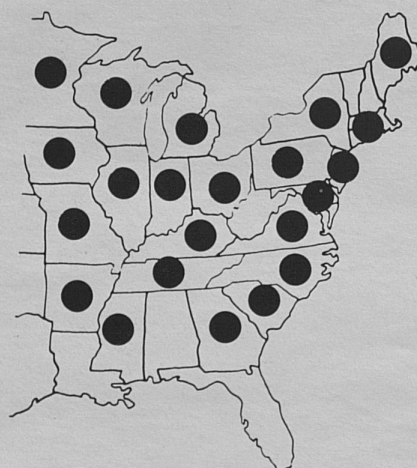


Fig. 105. — Eastern distribution of *N. verticis* (Say).

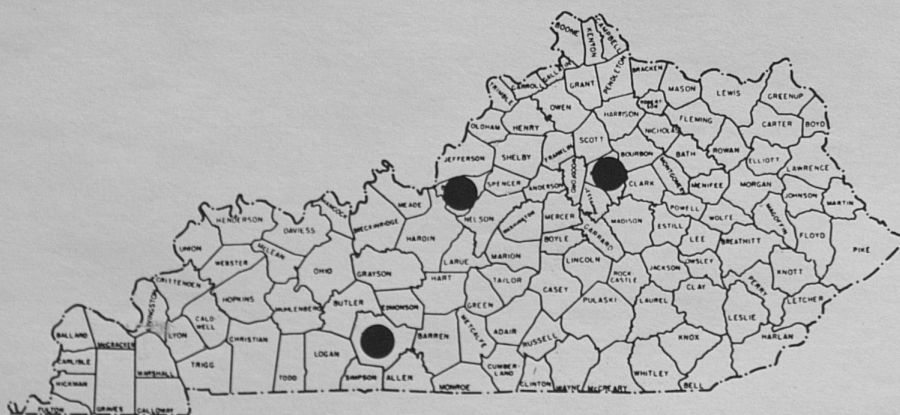


Fig. 106. — Kentucky distribution of *N. verticis* (Say).

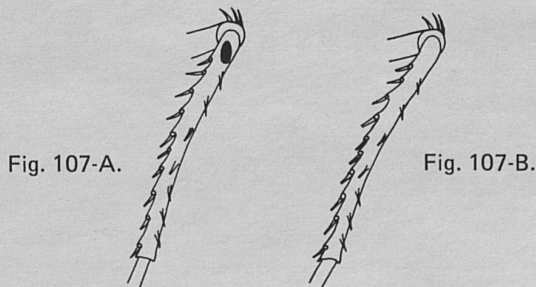
Macropsis Lewis

This genus is characterized by having the crown obtusely angled, short, and broad. Face short and broad, with ocelli equidistant from eyes and middle. Pronotum with striae oblique, converging anteriorly. Pygofer of male usually with a large spine on ventral margin. Variously colored from yellow, green, to brown, some patterned with brown. Most species are sexually dimorphic in size and color. Some species are only known from females. Host plants in Kentucky are wild plum, willow, poplar, and honey locust.

Beakey (1932) last revised the Nearctic species. This genus is in need of revision and the following key is given only as an aid in separating the known species.

KEY TO THE SPECIES OF *MACROPSIS*
FOR THE KENTUCKY AREA

- 1. Hind tibia bearing a black spot near base (Fig. 107a) 2
- Hind tibia without a black spot near base (Fig. 107b) 3



- 2. Green or yellowish green, only hind tibia bearing spots (on poplars and willows) *graminea* (Fabricius)
- Brown or gray, with all three pairs of tibiae with spots (on elm) *glandacea* (Fieber)
- 3. Forewing black or brown to near costa, costa green or greenish hyaline *fumipennis* (Gillette and Baker)
- Forewing variously colored, but not as above 4
- 4. Occurring on wild plum. Color generally dark brown with prominent striae on head and pronotum 5
- Occurring on poplars and willows. Variously colored, but mostly species which are green or green patterned with brown 7

- 5. Face with a black band above ocelli between eyes and a black spot below on clypens, (Fig. 108a) *tristis* (Van Duzee)
- Face without band or spot, evenly punctate (Fig. 108b) 6

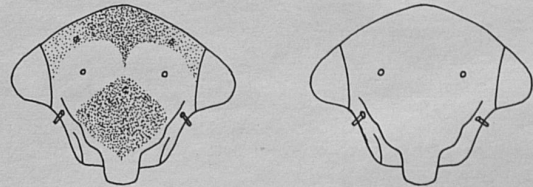


Fig. 108-A. Fig. 108-B.

- 6. Forewing with three white spots (Fig. 109a) *trimaculata* (Fitch)
- Forewing with only one white spot near middle (Fig. 109b) or none *insignis* (Van Duzee)

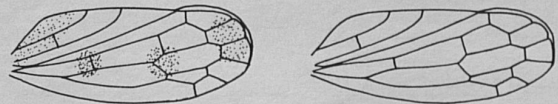


Fig. 109-A. Fig. 109-B.

- 7. Occurring on poplars. Usually green species variously banded on forewings with brown 8
- Occurring on willows. Various colors but usually not as above 11
- 8. Forewing with two narrow brown bands, one across middle, interrupted at the claval suture and another before apex *bifaciata* (Van Duzee)
- Forewing not banded as described above and usually with brown or black at base of wing 9
- 9. Forewing with only base heavily banded with brown 10
- Forewing with base black, often only on corium and another triangular black area near apex *nigricans* (Van Duzee)
- 10. Head and thorax green. Usually over 5 mm. in length *osborni* Breakey
- Head and thorax reddish brown. Usually under 5 mm. in length *basalis* (Van Duzee)
- 11. Small, usually less than 4.5 mm. Green, females unmarked, male with black bands or spots on face, and black tarsi *reversalis* (Osborn and Ball)
- Larger, usually over 4.5 mm. Variously colored, but male without black bands or spots on face 12

12. Forewing marked with black or dark brown . . . 13
 Forewing more uniformly green or smoky brown . 14
13. Clavus of forewing black, corium of female green and male smoky brown . . . *suturalis* (Osborn and Ball)
 Forewing mottled with black, distributed in irregular patches *sordida* (Van Duzee)
14. Forewings brown to smoky brown 15
 Forewings green to greenish hyaline 17
15. Body brown above, green below, male with black tarsi *bicolor* (Osborn)
 Body smoky brown above, green to yellow below, forewing hyaline or with a transverse hyaline band 16
16. Body green below, wings hyaline, females 5 mm. in length *cinerea* Breakey
 Body yellow below, wings smoky brown with a transverse hyaline band, females 5.5 mm. *ferruginoides* (Van Duzee)
17. Face with a distinct concave depression near middle between ocelli (Fig. 110a)

. *erythrocephala* (Gillette and Baker)
 Face without a concave depression (Fig. 110b) . . 18

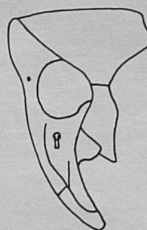


Fig. 110-A.

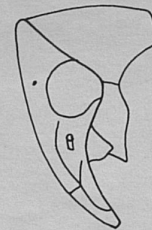


Fig. 110-B.

18. Head, pronotum, and most of scutellum reddish-brown *rufoccephala* Osborn
 Head, pronotum, and scutellum green 18
19. Body slender, male with tarsi and fore and middle tibia black *trivialis* (Ball)
 Body robust, male with legs entirely green *viridis* (Fitch)

Macropsis graminea (Fabricius)

(Figs. 111-113)

Cicada graminea Fabricius 1798, p. 521.

Length of males 4.2-4.6 mm., females 4.7-5.1 mm.

Crown short, obtusely angled, slightly shorter in middle than near eyes. Pronotum same width as head, six times longer than crown in middle. Forewings long, straight, without appendix.

Color: Generally yellowish-green, with a conspicuous black spot at base of hind tibia. Many specimens also show a black median spot on crown.

Male genitalia: Plates long, narrow, rounded at apex. Pygofer truncate with a large dorsally projected process on

each side. Style long, narrow, with a foot-shaped apex. Aedeagus tubular, long, narrowing from base to a blunt apex, gonapophore just subapical.

Female genitalia: Seventh sternum nearly triangular, apex with a median emargination.

This species has been collected on willows. In Kentucky it has been collected on *Salix nigra* Marsh.

Parasites: None have been reported for this species.

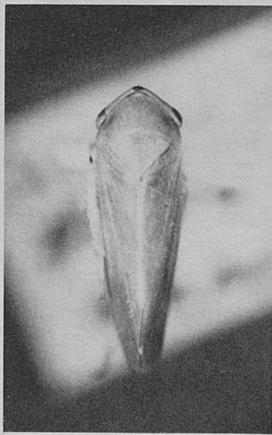


Fig. 111. — Dorsal view of female *M. graminea* (Fabricius).

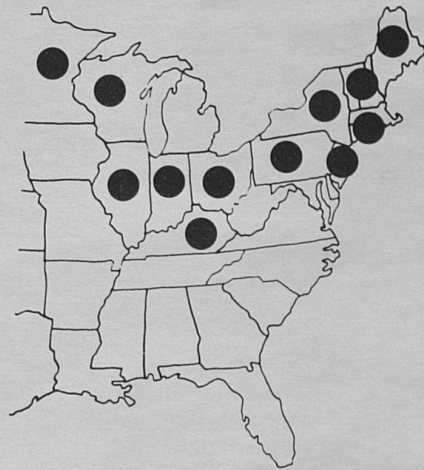


Fig. 112. — Eastern distribution of *M. graminea* (Fabricius).



Fig. 113. — Kentucky distribution of *M. graminea* (Fabricius).

Macropsis glandacea (Fieber)
(Figs. 114-116)

Pediopsis glandacea Fieber 1868, p. 458.

Length of males 3.9-4.3 mm., females 4.4-4.6 mm.

Crown short, obtusely angled, same length in middle as near eyes. Pronotum same width as head, nearly six times longer than crown in middle. Forewings long, nearly straight, without appendix.

Color: Generally greenish-brown, fading to smoky brown. A black spot at the base of each tibia. Tergites and epimera mostly black.

Male genitalia: Plate long, narrow, rounded at apex.

Pygofer truncate with a large dorsally produced spine on each side. Style long, narrow, hooked at apex. Aedeagus tubular, narrowing to apex of shaft.

Female genitalia: Seventh sternum nearly triangular, apex with a median emargination.

This species has been collected on elm (*Ulmus americana* L.).

Parasites: None have been reported for this species.



Fig. 114. — Dorsal view of female *M. glandacea* (Fieber).



Fig. 115. — Eastern distribution of *M. glandacea* (Fieber).

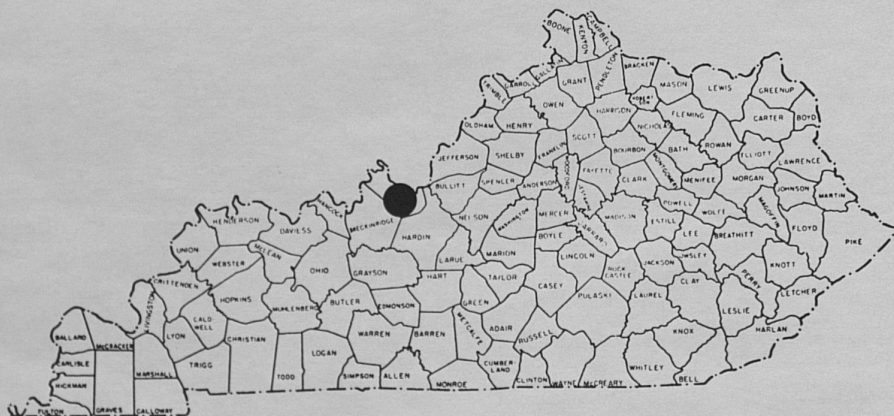


Fig. 116. — Kentucky distribution of *M. glandacea* (Fieber).

Macropsis fumipennis (Gillette and Baker)

(Figs. 117-119)

Pediopsis fumipennis Gillette and Baker 1895, p. 73.

Length of males 4.0-4.3 mm., females 4.5-4.8 mm.

Crown short, obtusely angled, slightly shorter in middle than near eyes. Pronotum wider than head, six times longer than crown in middle. Forewings long, straight, without appendix.

Color: Generally yellowish-green to green with forewings smoky brown to black. Males darker than females. Some populations very dark, mostly black, while others are mostly yellowish-green with a slight indication of smoky brown on forewings.

Male genitalia: Plates long, narrow, rounded at apex.

Pygofer nearly truncate, with a large dorsally produced spine-like process on each side. Style long, narrow, bluntly hooked at apex. Aedeagus tubular, dorsally produced, apex of shaft ventrally flattened.

Female genitalia: Seventh sternum nearly triangular with apical margin with v-shaped emargination.

This species has been collected on honey locust (*Gleditsia tricanthos* L.).

Parasites: None have been reported for this species.

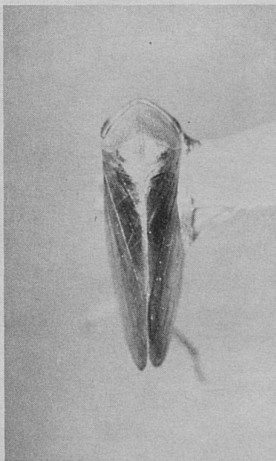


Fig. 117. — Dorsal view of female *M. fumipennis* (Gillette and Baker).

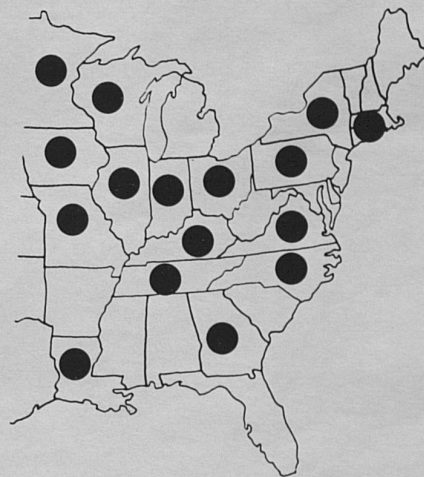


Fig. 118. — Eastern distribution of *M. fumipennis* (Gillette and Baker).

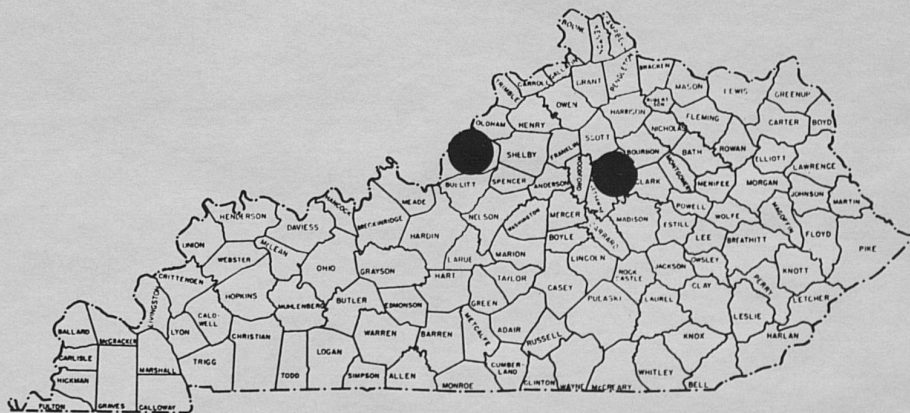


Fig. 119. — Kentucky distribution of *M. fumipennis* (Gillette and Baker).

Macropsis tristis (Van Duzee)
(Figs. 120-122)

Pediopsis tristis Van Duzee 1890, p. 249.

Length of males 4.6-4.9 mm., females 5.2-5.5 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum same width as head, six times longer than crown in middle with striae strongly oblique. Forewings long, broad, with strong veins, without appendix.

Color: Generally smoky brown above, yellowish-green below. Face with a black band near anterior margin and a black median spot below on clypeus. Forewings with veins light brown bordered with brown.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum produced with a median emargination.

This species has been collected on wild plum (*Prunus americana* Marsh).

Parasites: None have been reported for this species.

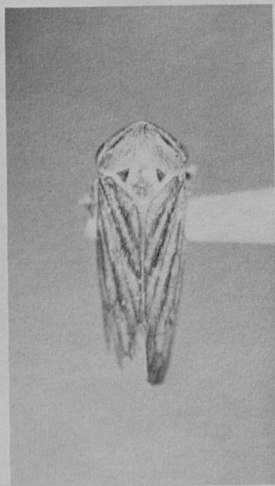


Fig. 120. — Dorsal view of male *M. tristis* (Van Duzee).

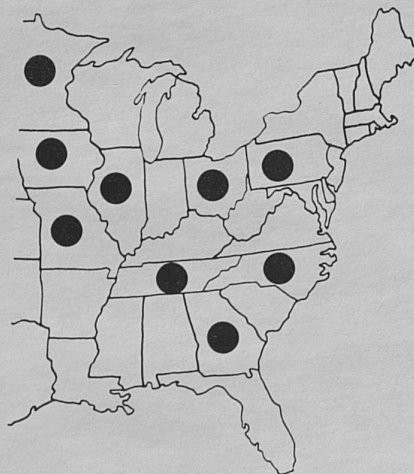


Fig. 121. — Eastern distribution of *M. tristis* (Van Duzee).

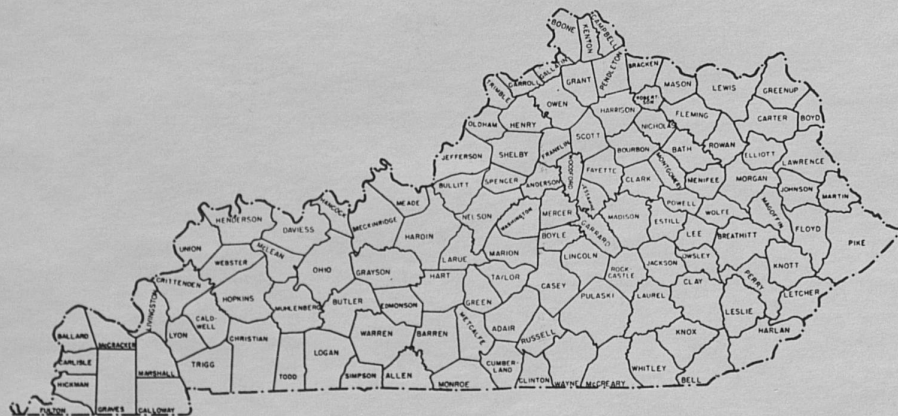


Fig. 122. — Kentucky distribution of *M. tristis* (Van Duzee).

Macropsis trimaculata (Fitch)

(Figs. 123-125)

Pediopsis trimaculatus Fitch 1851, p. 60.

Length of males 4.4-4.7 mm., females 4.8-5.1 mm.

Crown short, obtusely angled, same length in middle as near eyes. Pronotum same width as head, six times longer than crown in middle, with striae strongly oblique. Forewings short, broad, truncate.

Color: Generally smoky brown to black, with three white spots on each forewing. Male darker than female with underneath nearly all black. Spots on forewing in a row, first near base, second near middle and third near apical cells.

Male genitalia: Plates long, narrow, slightly expanded

and rounded at apex. Pygofer truncate, with a large dorsally produced process on each side which is knobbed, then pointed at apex. Style long, narrow, bluntly hooked at apex. Aedeagus tubular, dorsally projecting with a flared fan-shaped apex.

Female genitalia: Seventh sternum produced with a wide but shallow emargination at apex.

This species has been collected on wild plum (*Prunus americana* Marsh).

Parasites: None have been reported for this species.



Fig. 123. — Dorsal view of female *M. trimaculata* (Fitch).

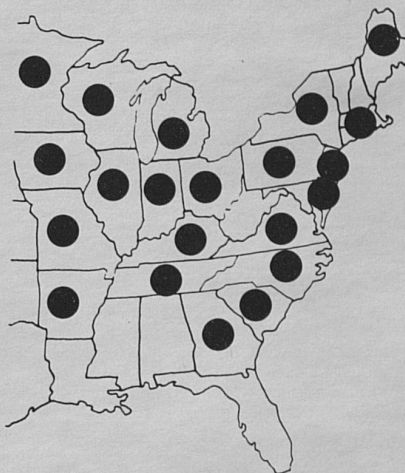


Fig. 124. — Eastern distribution of *M. trimaculata* (Fitch).



Fig. 125. — Kentucky distribution of *M. trimaculata* (Fitch).

Macropsis insignis (Van Duzee)

(Figs. 126-128)

Pediopsis insignis Van Duzee 1889, p. 171.

Length of males 4.2-4.5 mm., females 4.8-5.1 mm.

Crown short, obtusely angled, same length in middle as near eyes. Pronotum same width as head, six times longer than crown in middle, with striae strongly oblique. Forewings short, broad, truncate.

Color: Generally smoky brown, with or without a single white spot near middle of forewing. Males usually with forewings concolorous, underneath brown.

Male genitalia: Plates long, narrow, rounded at apex. Pygofer truncate with a large process on each side which is

short and blunt. Style long, narrow, with hooked apex. Aedeagus tubular, long, strap-like, dorsally bent, apex ending in two parallel sharply pointed processes.

Female genitalia: Seventh sternum produced with a slight median emargination.

This species has been collected on wild plum (*Prunus americana* Marsh). It can occur with *trimaculata*, on the same plant.

Parasites: None have been reported for this species.

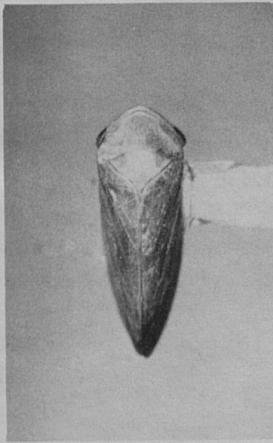


Fig. 126. — Dorsal view of female *M. insignis* (Van Duzee).

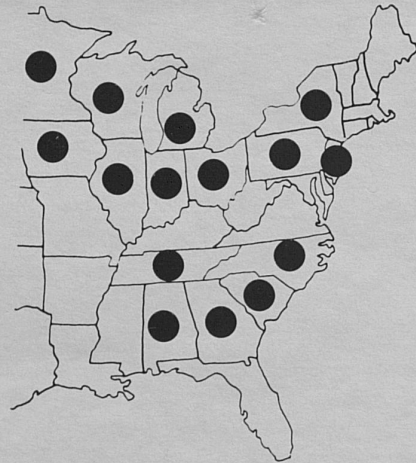


Fig. 127. — Eastern distribution of *M. insignis* (Van Duzee).

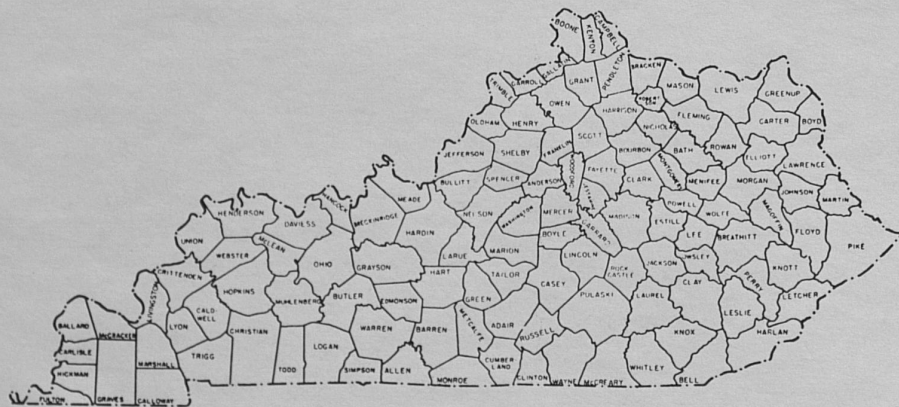


Fig. 128. — Kentucky distribution of *M. insignis* (Van Duzee).

Macropsis bifasciata (Van Duzee)
(Figs. 129-131)

Pediopsis bifasciata Van Duzee 1889, p. 173.

Length of males 4.8-5.1 mm., females 5.1-5.3 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum nearly same width as head, six times longer than crown at middle. Forewings long, narrow, without appendix.

Color: Generally greenish-brown, with two transverse bands of brown on forewings. Green fading to yellow in older specimens. Mostly yellowish-green below. One brown band on forewings across middle interrupted at claval

suture, second just before apex. Males have bands less distinct blending more with remainder of wing.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum roundedly produced with a median emargination.

This species has been collected on populars.

Parasites: None have been reported for this species.

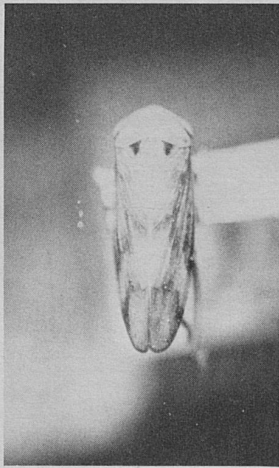


Fig. 129. — Dorsal view of female *M. bifasciata* (Van Duzee).

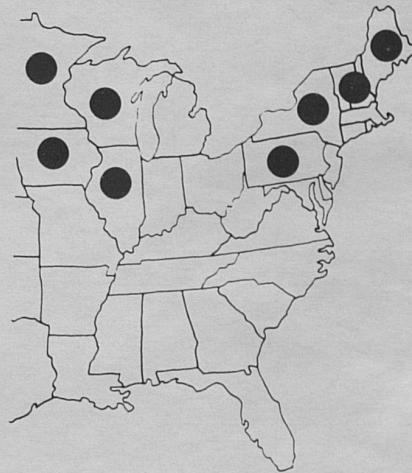


Fig. 130. — Eastern distribution of *M. bifasciata* (Van Duzee).

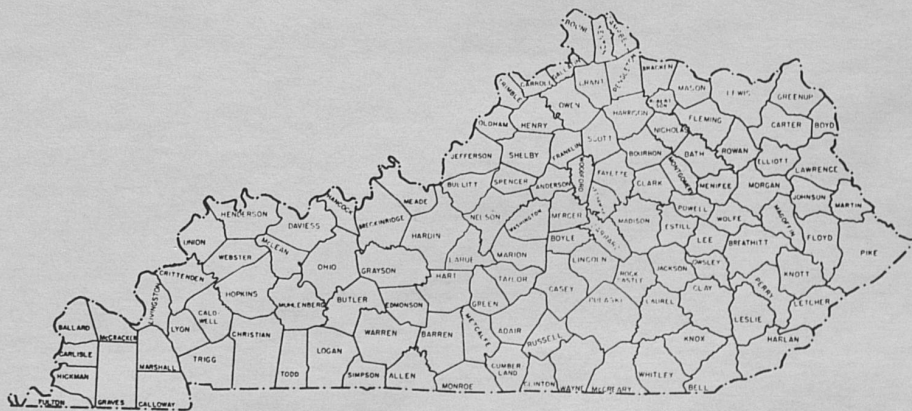


Fig. 131. — Kentucky distribution of *M. bifasciata* (Van Duzee).

Macropsis nigricans (Van Duzee)

(Figs. 132-134)

Pediopsis nigricans Van Duzee 1916, p. 64.

(New name for *trimaculata* Van Duzee 1889, p. 172.)

Length of males 4.9-5.2 mm., females 5.3-5.6 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum same width as head, six times longer than crown in middle. Forewings long, narrow without appendix.

Color: Similar to *bifasciata*. Greenish-brown with the forewings with basal area brown to black, also a triangular patch of brown at apex. Specimens fade to yellow or

yellowish-green with the two brown patches on forewings.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum triangularly produced, apex with a slight median emargination.

This species has been collected on Cottonwood (*Populus deltoides* Marsh).

Parasites: None have been reported for this species.



Fig. 132. — Dorsal view of female *M. nigricans* (Van Duzee).

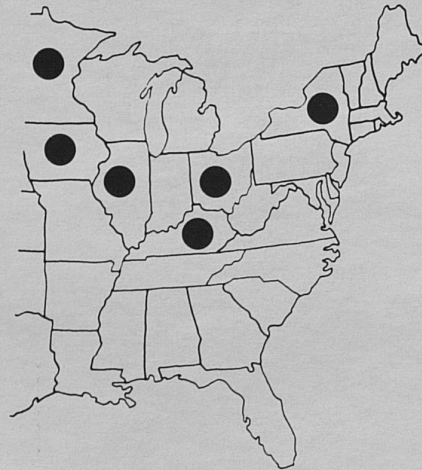


Fig. 133. — Eastern distribution of *M. nigricans* (Van Duzee).



Fig. 134. — Kentucky distribution of *M. nigricans* (Van Duzee).

Macropsis osborni Breakey
(Figs. 135-137)

Macropsis osborni Breakey 1932, p. 817.

Length of males 4.9-5.2 mm., females 5.7-6.0 mm.

Crown short, obtusely angled, shorter near middle than near eyes. Pronotum same width as head, six times longer than crown in middle. Forewings long, narrow, without appendix.

Color: Generally green to yellowish-green with a broad black band on forewings bordering the scutellum. Males same color as females except more smoky brownish-green.

Male genitalia: Unknown.

Female genitalia: Seventh sternum triangularly produced, apex with a distinct median emargination.

This species has been collected in small numbers from cottonwood (*Populus deltoides* Marsh).

Parasites: None have been recorded for this species.

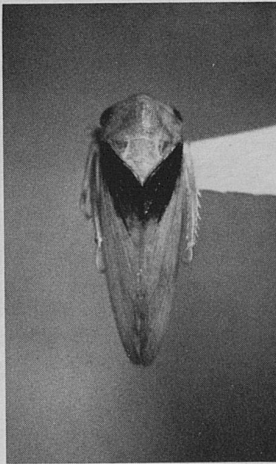


Fig. 135. — Dorsal view of female *M. osborni* Breakey.

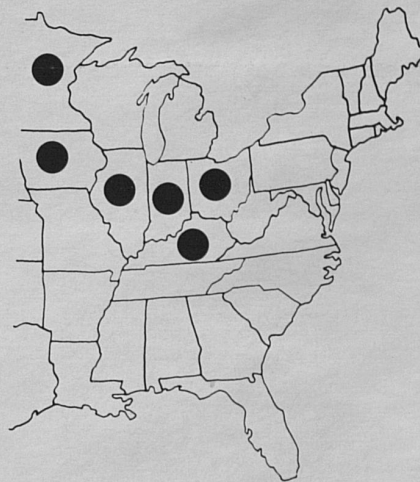


Fig. 136. — Eastern distribution of *M. osborni* Breakey.



Fig. 137. — Kentucky distribution of *M. osborni* Breakey.

Macropsis basalis (Van Duzee)
(Figs. 138-140)

Pediopsis basalis Van Duzee 1889, p. 171.

Length of males 4.0-4.3 mm., females 4.6-5.0 mm.

Crown short, obtusely angled, shorter in middle than near eyes. Pronotum nearly same width as head, six times longer than crown in middle. Forewings long, narrow, without appendix.

Color: Generally smoky brown, females greenish-brown, with a broad black band at base of forewing bordering the scutellum. Females usually with one or two more brown bands on forewings.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum roundedly produced with a median emargination.

This species has been collected from aspen (*Populus tremuloides* Michx.).

Parasites: None have been recorded for this species.

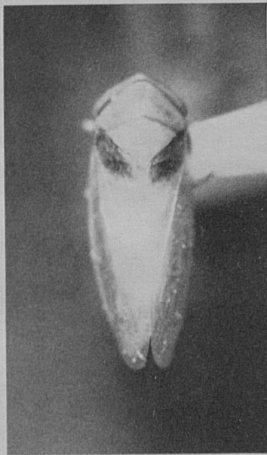


Fig. 138. — Dorsal view of female *M. basalis* (Van Duzee).

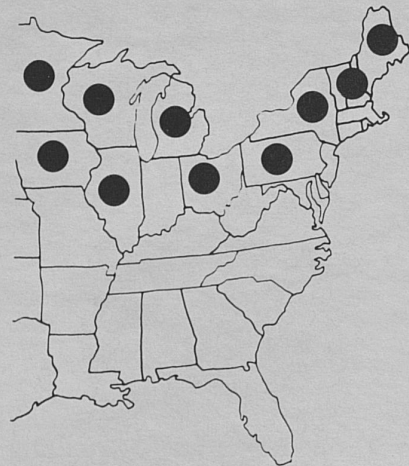


Fig. 139. — Eastern distribution of *M. basalis* (Van Duzee).

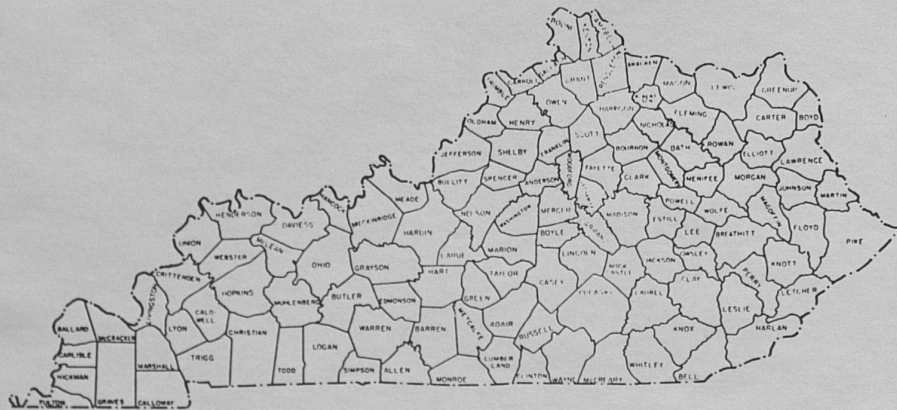


Fig. 140. — Kentucky distribution of *M. basalis* (Van Duzee).

Macropsis reversalis (Osborn and Ball)

(Figs. 141-143)

Pediopsis reversalis Osborn and Ball 1898, p. 69.

Length of males 3.9-4.2 mm., females 4.3-4.6 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum slightly wider than head, six times longer than crown in middle. Forewing long, straight, without appendix.

Color: Generally light green. Male with a large black spot between ocelli and crown, and another smaller black spot below on median of clypeus, male also with a spot on epimera, all tarsi and fore tibia black. Female all light green, sometimes epimera with a small black spot.

Male genitalia: Plates long, narrow, round at apex.

Pygofer nearly truncate, with a large dorsally produced spine-like process on each side. Style long, narrow, bluntly hooked at apex. Aedeagus tubular, dorsally projected, apex of shaft slightly flattened ventrally.

Female genitalia: Seventh sternum nearly triangular, produced, with a slight median emargination at apex.

This species has been collected on willow (*Salix nigra* Marsh).

Parasites: None have been reported for this species.

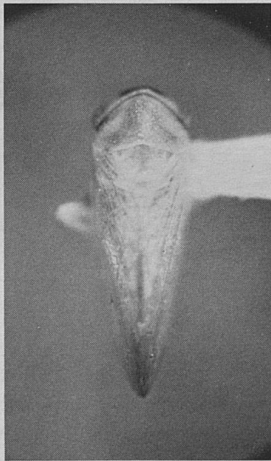


Fig. 141. — Dorsal view of female *M. reversalis* (Osborn and Ball).

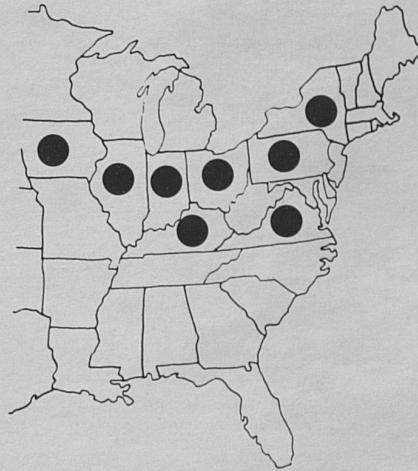


Fig. 142. — Eastern distribution of *M. reversalis* (Osborn and Ball).

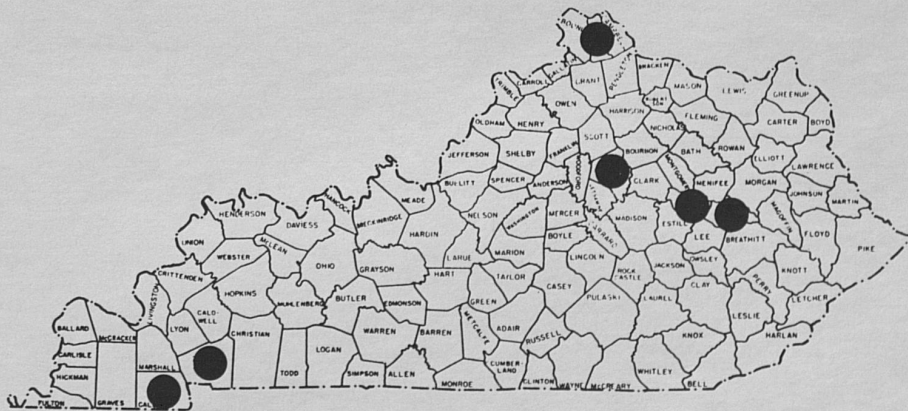


Fig. 143. — Kentucky distribution of *M. reversalis* (Osborn and Ball).

Macropsis suturalis (Osborn and Ball)
(Figs. 144-146)

Pediopsis suturalis Osborn and Ball 1898, p. 67.

Length of males 4.8-5.1 mm., females 5.2-5.5 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum nearly same width as head, striae prominent. Forewing long, narrow, without appendix.

Color: Generally green to smoky green with the clavus entirely black, and black also from clavus along median line back to apex. Males darker than females, which makes the black stripe on forewings less evident.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum produced with a median emargination.

This species has been recorded from willow (*Salix amygdaloides* Anders.).

Parasites: None have been recorded for this species.

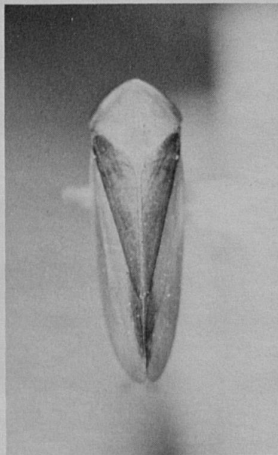


Fig. 144. — Dorsal view of female *M. suturalis* (Osborn and Ball).

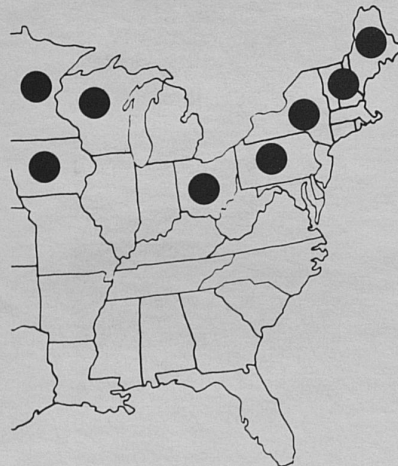


Fig. 145. — Eastern distribution of *M. suturalis* (Osborn and Ball).

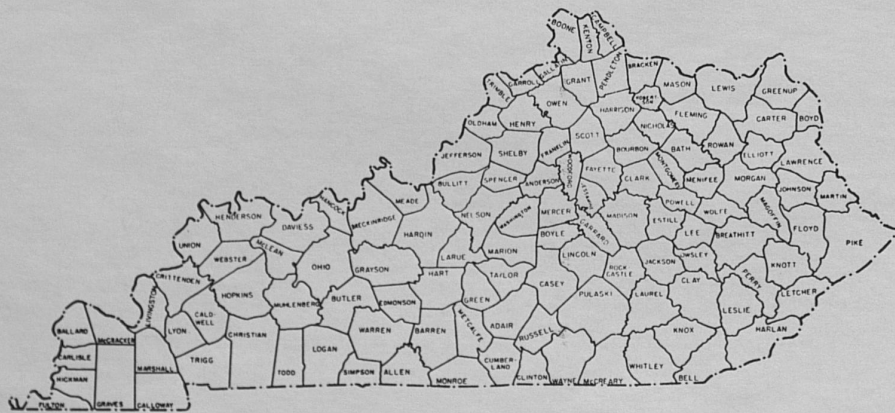


Fig. 146. — Kentucky distribution of *M. suturalis* (Osborn and Ball).

Macropsis sordida (Van Duzee)
(Figs. 147-149)

Pediopsis sordida Van Duzee 1894, p. 89.

Length of males 4.4-4.7 mm., females 4.8-5.1 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum nearly same width as head, six times longer than crown in middle. Forewings long, narrow, without an appendix.

Color: Generally green to yellowish-green, mottled or patterned with brown. Face green stained with brown spots or patches.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum roundedly produced with a median emargination.

This species has been collected from willow (*Salix* sp.).

Parasites: None have been recorded for this species.

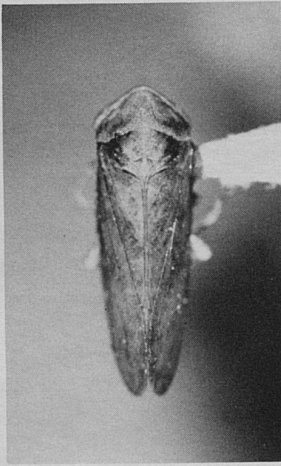


Fig. 147. — Dorsal view of female *M. sordida* (Van Duzee).

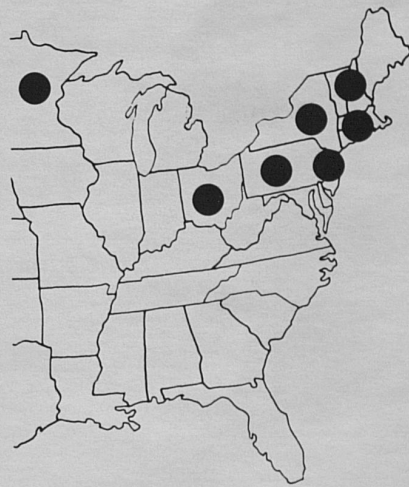


Fig. 148. — Eastern distribution of *M. sordida* (Van Duzee).



Fig. 149. — Kentucky distribution of *M. sordida* (Van Duzee).

Macropsis bicolor (Osborn)

(Figs. 150-152)

Pediopsis bicolor Osborn 1915, p. 90.

Length of males 4.8-5.1 mm., females 5.3-5.6 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum nearly same width as head, six times longer than crown in middle. Forewings long, narrow, without an appendix.

Color: Generally brown to brownish-black above, green to yellowish-green below. Male somewhat darker than female and with apical ends of tibiae and all tarsal segments black.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum roundedly produced with a median emargination.

This species has been collected on willows (*Salix* sp.).

Parasites: None have been recorded for this species.

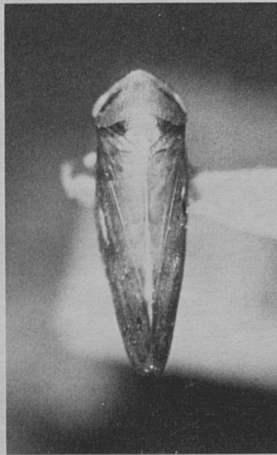


Fig. 150. — Dorsal view of female *M. bicolor* (Osborn).

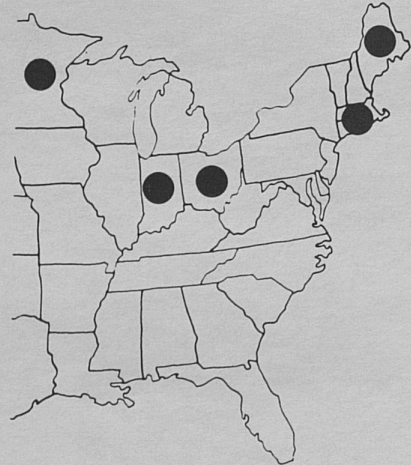


Fig. 151. — Eastern distribution of *M. bicolor* (Osborn).

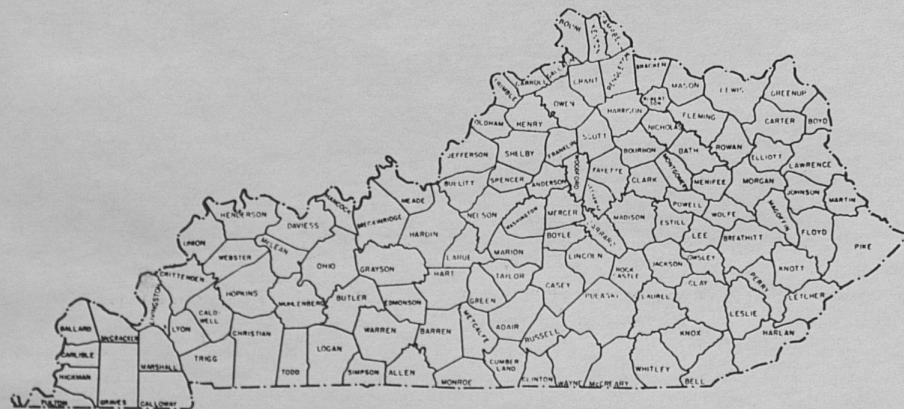


Fig. 152. — Kentucky distribution of *M. bicolor* (Osborn).

Macropsis cinerea Breakey
(Figs. 153-155)

Macropsis cinerea Breakey 1932, p. 816.
Length of males unknown, females 5 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum same width as head, striae fine, six times longer than crown in middle. Forewings long, narrow, without an appendix.

Color: Generally smoky brown above, greenish-brown below. Forewings smoky hyaline.

Male genitalia: Unknown.

Female genitalia: Seventh sternum triangularly produced, apex with a median emargination.

This species has been collected on willow (*Salix* sp.).

Parasites: None have been recorded for this species.

This species has been collected only in Ohio and is so poorly known that it is doubtful whether it is really a valid species.



Fig. 153. — Dorsal view of female *M. cinerea* Breakey.



Fig. 154. — Eastern distribution of *M. cinerea* Breakey.



Fig. 155. — Kentucky distribution of *M. cinerea* Breakey.

Macropsis ferruginoides (Van Duzee)
(Figs. 156-158)

Pediopsis ferruginoides Van Duzee 1889, p. 171.
Length of males 4.9-5.2 mm., females 5.5-6.0 mm.

Crown short, obtusely angled, nearly same length in middle as near eyes. Pronotum same width as head, striae fine, six times as long as crown in middle, posterior margin deeply angulate. Forewings long, narrow, without appendix.

Color: Generally smoky brown above including upper part of face, yellow below including lower part of face and costal margin of forewing. Also a transverse hyaline band before apex of forewing.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum triangularly produced, apex with a median emargination.

This species has been collected on willows, in this area occurring on *Salix nigra* Marsh.

Parasites: None have been recorded for this species.



Fig. 156. — Dorsal view of female *M. ferruginoides* (Van Duzee).

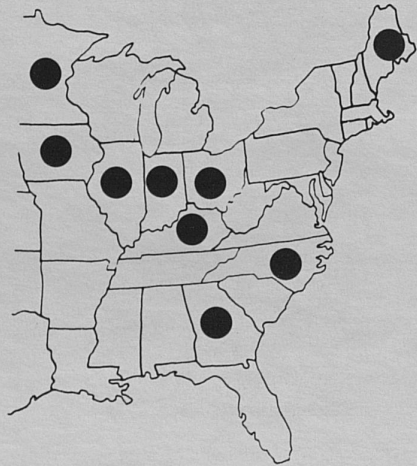


Fig. 157. — Eastern distribution of *M. ferruginoides* (Van Duzee).

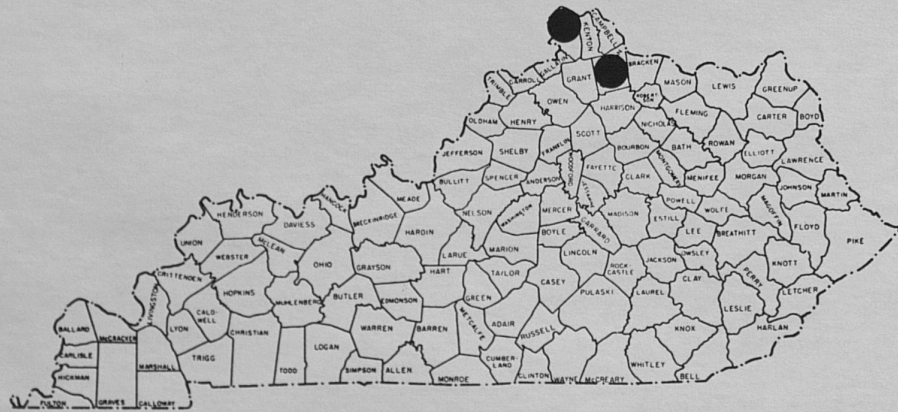


Fig. 158. — Kentucky distribution of *M. ferruginoides* (Van Duzee).

Macropsis erythrocephala (Gillette and Baker)
(Figs. 159-161)

Pediopsis erythrocephala Gillette and Baker 1895, p. 72.
Length of males 5.0-5.2 mm., females 5.8-6.1 mm.

Crown short, obtusely angled, shorter in middle than near eyes. Face concave between ocelli. Pronotum nearly same width as head, striae very fine, six times longer than crown in middle, posterior margin deeply angulate. Forewing long, narrow, without appendix.

Color: Females generally green. Males generally greenish-brown to orangish-brown marked with brown, tarsi black.

Male genitalia: Unknown.

Female genitalia: Seventh sternum triangularly produced, apex with a distinct median emargination.

This species has been collected on willows. In this area it has been collected from *Salix nigra* Marsh.

Parasites: None have been recorded for this species.

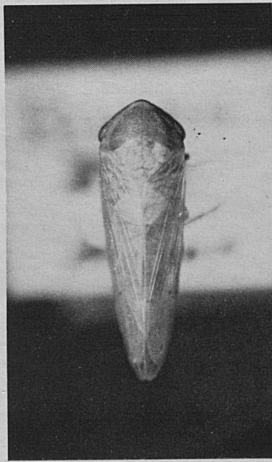


Fig. 159. — Dorsal view of female *M. erythrocephala* (Gillette and Baker).

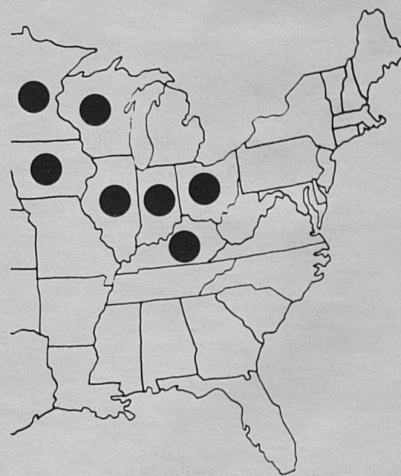


Fig. 160. — Eastern distribution of *M. erythrocephala* (Gillette and Baker).

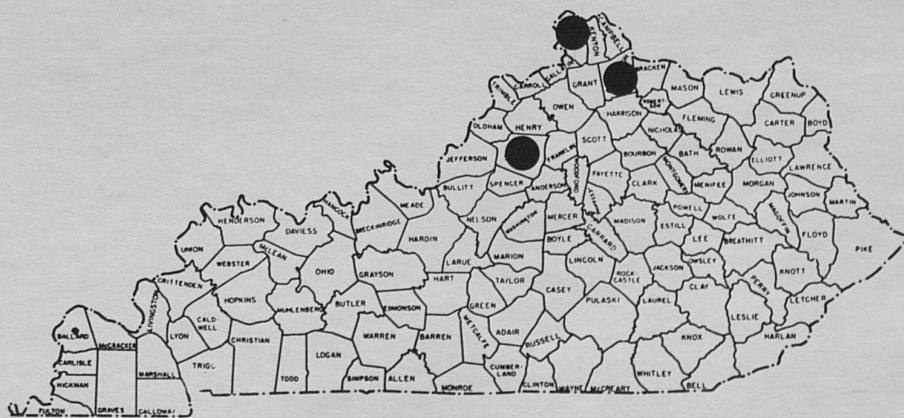


Fig. 161. — Kentucky distribution of *M. erythrocephala* (Gillette and Baker).

Macropsis rufoccephala Osborn

(Figs. 162-164)

Macropsis rufoccephala Osborn 1932, p. 513.

(New name for *scutellatus* Osborn 1928, p. 218.)

Length of males unknown, females 5.3-5.6 mm.

Crown short, obtusely angled, shorter in middle than near eyes. Pronotum nearly same width as head, six times longer than crown in middle, posterior margin deeply angulate. Forewing long, broad, without appendix.

Color: Generally yellowish-green with upper half of face, crown, pronotum, and anterior part of scutellum reddish-brown.

Male genitalia: Unknown.

Female genitalia: Seventh sternum triangularly produced, with a slight median emargination.

This species has been collected from willow (*Salix* sp.).

Parasites: None have been recorded for this species.

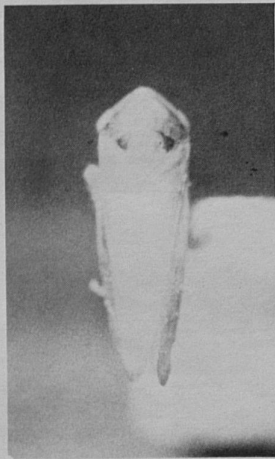


Fig. 162. — Dorsal view of female *M. rufoccephala* Osborn.

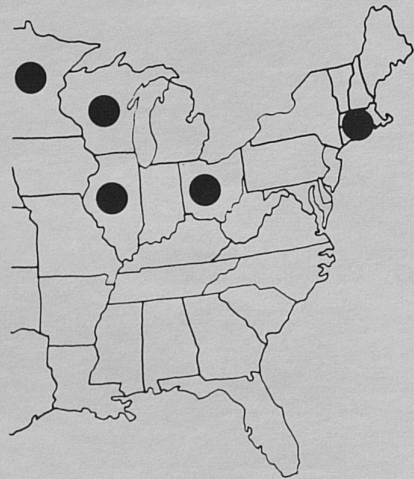


Fig. 163. — Eastern distribution of *M. rufoccephala* Osborn.



Fig. 164. — Kentucky distribution of *M. rufoccephala* Osborn.

Macropsis trivialis (Ball)
(Figs. 165-167)

Pediopsis trivialis Ball 1902, p. 304.

Length of males 4.4-4.7 mm., females 5.1-5.5 mm.

Crown short, obtusely angled, shorter in middle than near eyes. Pronotum nearly same width as head, six times longer than crown in middle. Forewing long, narrow, without appendix.

Color: Generally yellowish-green. Males with apical parts of fore and middle tibiae and tarsi black, forewings somewhat smoky at apex.

Male genitalia: Plate long, narrow, bluntly rounded apex. Pygofer short, truncate, with a large long dorsally

projecting process on each side. Style long, narrow, hooked at apex. Aedeagus tubular, without processes, but very slightly expanded at apex of shaft.

Female genitalia: Seventh sternum triangularly produced, apex with a median emargination.

This species has been collected from willows. In this area it occurs on *Salix nigra* Marsh.

Parasites: None have been recorded for this species.

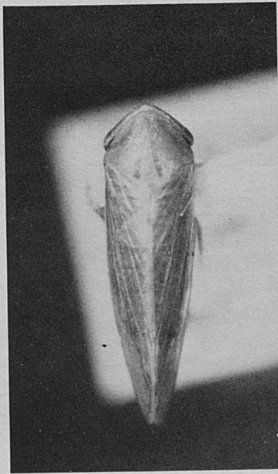


Fig. 165. — Dorsal view of female *M. trivialis* (Ball).

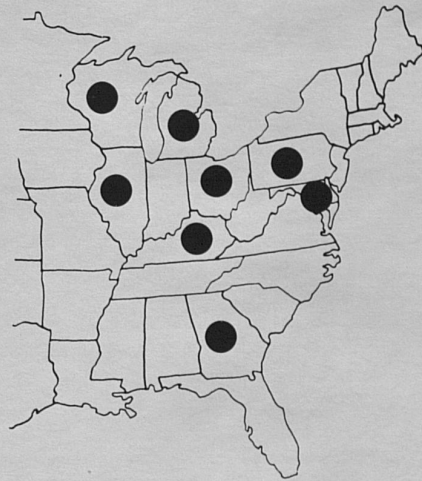


Fig. 166. — Eastern distribution of *M. trivialis* (Ball).

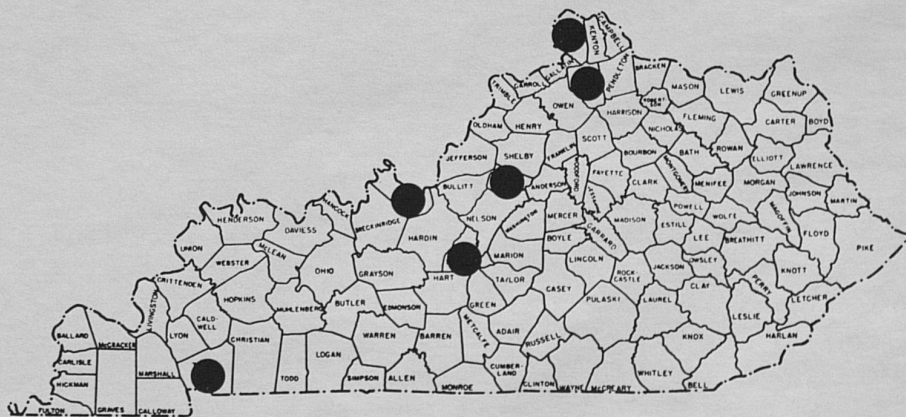


Fig. 167. — Kentucky distribution of *M. trivialis* (Ball).

Macropsis viridis (Fitch)

(Figs. 168-170)

Pediopsis viridis Fitch 1851, p. 59.

Length of males 4.4-4.8 mm., females 5.1-5.5 mm.

Crown short, obtusely angled, shorter in middle than near eyes. Pronotum nearly same width as head, six times longer than crown in middle. Forewings long, broad, without appendix.

Color: Generally yellowish-green to green, males with forewings smoky brown.

Male genitalia: Unknown at this time.

Female genitalia: Seventh sternum triangularly produced, apex with a slight median emargination.

This species has been collected on willows. In this area it occurs on *Salix nigra* Marsh.

Parasites: None have been recorded for this species.



Fig. 168. — Dorsal view of female *M. viridis* (Fitch).

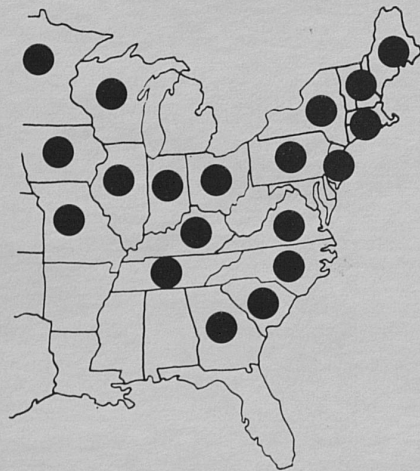


Fig. 169. — Eastern distribution of *M. viridis* (Fitch).

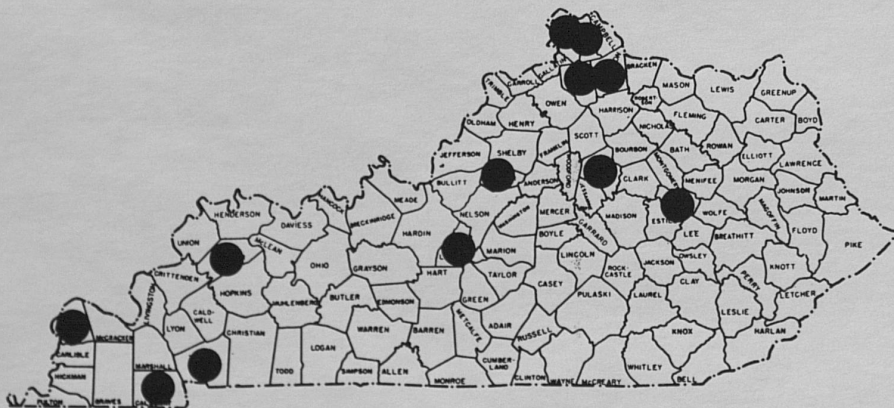


Fig. 170. — Kentucky distribution of *M. viridis* (Fitch).

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