

Institute of Natural Resource Sustainability

Review of the Species of New World
Erythroneurini (Hemiptera: Cicadellidae:
Typhlocybinae)

III. Genus *Erythridula*

Dmitry A. Dmitriev and Christopher H. Dietrich



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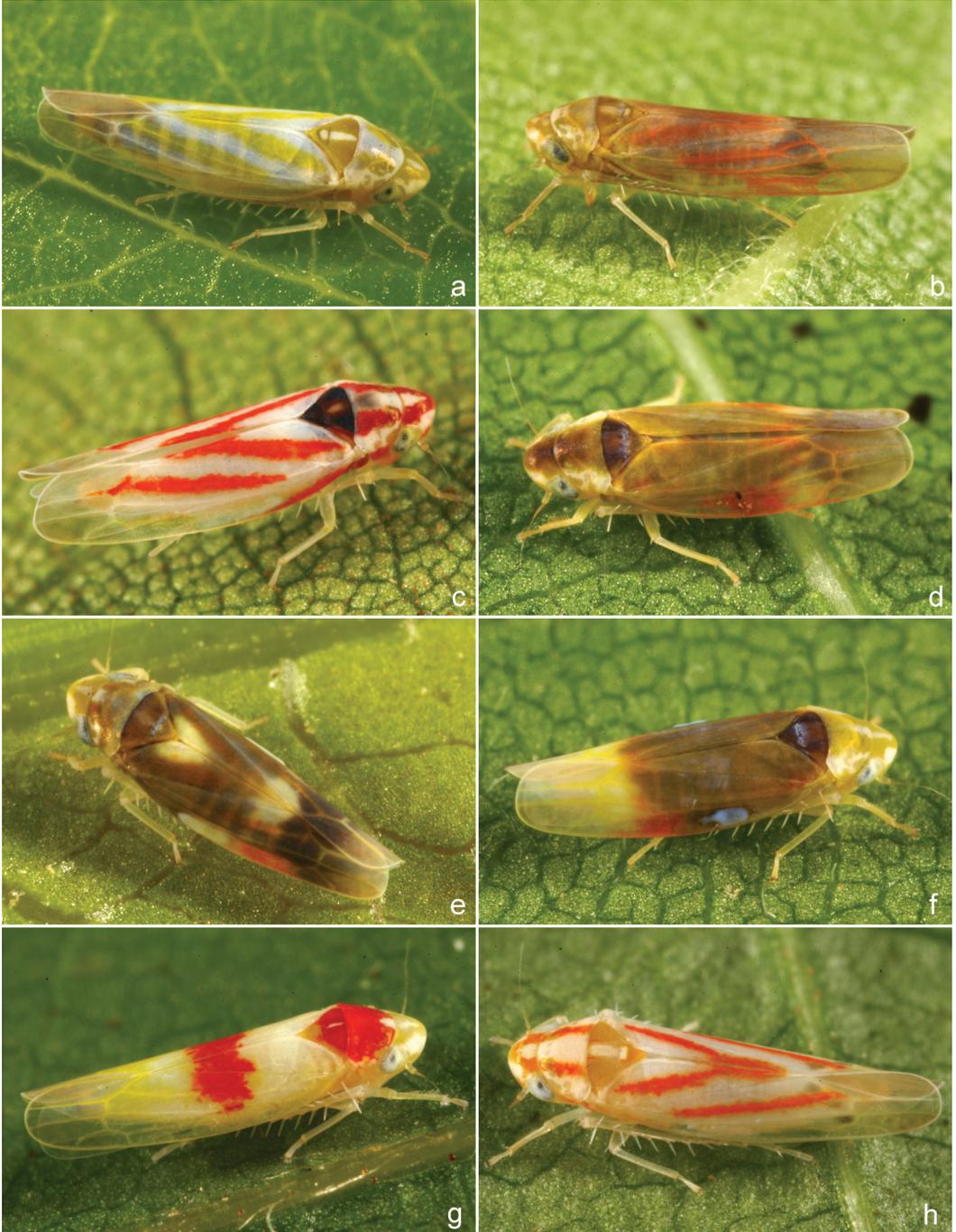


Plate 1. a—*Erythridula diffisa* (Beamer); b—*E. ulmosa* (Ross & DeLong); c—*E. brundusa* (Robinson); d—*E. lemnisca* (McAtee); e—*E. fumida* (Gillette); f—*E. crevecoeuri* (Gillette); g—*E. aesculella* (Ross & DeLong); h—*E. modica* (Beamer).

CONTENTS

Plate 1 (Photos of <i>Erythridula</i> Species)	Frontis
Abstract	215
Introduction	216
Materials and Methods	216
Taxonomy	217
Genus <i>Erythridula</i> Young, 1952	217
Key to Adult Males of <i>Erythridula</i>	219
<i>Erythridula lawsoniana</i>	232
<i>Erythridula electa</i>	233
<i>Erythridula sagittata</i>	234
<i>Erythridula complicata</i>	235
<i>Erythridula bitincta</i>	235
<i>Erythridula crataegi</i>	236
<i>Erythridula intricata</i>	237
<i>Erythridula canadensis</i>	237
<i>Erythridula occidua</i>	238
<i>Erythridula dolosa</i>	239
<i>Erythridula anomala</i>	239
<i>Erythridula mansueta</i>	240
<i>Erythridula celebrata</i>	241
<i>Erythridula brundusa</i>	241
<i>Erythridula whitti</i>	242
<i>Erythridula rubrotincta</i>	243
<i>Erythridula tridens</i>	243
<i>Erythridula juglandis</i>	244
<i>Erythridula divisa</i>	245
<i>Erythridula lloydi</i>	245
<i>Erythridula morrissi</i>	246
<i>Erythridula cruciformis</i>	247
<i>Erythridula pfrimmeri</i>	247
<i>Erythridula autenae</i>	248
<i>Erythridula martini</i>	249
<i>Erythridula tolerata</i>	249
<i>Erythridula dunni</i>	250
<i>Erythridula parsonsi</i>	251
<i>Erythridula afflicta</i>	251
<i>Erythridula noeva</i>	252
<i>Erythridula nondescripta</i>	253
<i>Erythridula infinita</i>	253
<i>Erythridula spearca</i>	254
<i>Erythridula aesculella</i>	255
<i>Erythridula perita</i>	255
<i>Erythridula haspata</i>	256
<i>Erythridula wysongi</i>	257
<i>Erythridula torva</i>	257
<i>Erythridula rubens</i>	258

<i>Erythridula praecisa</i>	259
<i>Erythridula aspera</i>	259
<i>Erythridula dowelli</i>	260
<i>Erythridula furcillata</i>	261
<i>Erythridula plena</i>	261
<i>Erythridula crossi</i>	262
<i>Erythridula funesta</i>	263
<i>Erythridula rubrataeniensis</i>	263
<i>Erythridula repleta</i>	264
<i>Erythridula minima</i>	265
<i>Erythridula rubroscuta</i>	265
<i>Erythridula nitida</i>	266
<i>Erythridula acicularis</i>	267
<i>Erythridula penobliqua</i>	267
<i>Erythridula stolata</i>	268
<i>Erythridula ohioensis</i>	269
<i>Erythridula fumida</i>	269
<i>Erythridula jonesi</i>	270
<i>Erythridula magnacalx</i>	271
<i>Erythridula penofoeva</i>	271
<i>Erythridula lucileae</i>	272
<i>Erythridula planerae</i>	273
<i>Erythridula amabilis</i>	273
<i>Erythridula stylata</i>	274
<i>Erythridula ulmosa</i>	275
<i>Erythridula harpax</i>	275
<i>Erythridula ulmalatae</i>	276
<i>Erythridula angularis</i>	277
<i>Erythridula sincera</i>	277
<i>Erythridula hamata</i>	278
<i>Erythridula unicuspidis</i>	279
<i>Erythridula obliqua</i>	279
<i>Erythridula varia</i>	280
<i>Erythridula fulvocephala</i>	281
<i>Erythridula bicornis</i>	282
<i>Erythridula obvia</i>	282
<i>Erythridula minuta</i>	283
<i>Erythridula wyatti</i>	284
<i>Erythridula lemnisca</i>	284
<i>Erythridula idonea</i>	285
<i>Erythridula beckiae</i>	286
<i>Erythridula crevecoeuri</i>	286
<i>Erythridula malleiformis</i>	287
<i>Erythridula meridiana</i>	288
<i>Erythridula zephyr</i>	288
<i>Erythridula ilicis</i>	289
<i>Erythridula parvispicata</i>	290
<i>Erythridula insigna</i>	290
<i>Erythridula cornipes</i>	291
<i>Erythridula falcata</i>	292
<i>Erythridula herberti</i>	292
<i>Erythridula acutalis</i>	293
<i>Erythridula cotidiana</i>	294
<i>Erythridula tenebrosa</i>	294

<i>Erythridula tenuispica</i>	295
<i>Erythridula rugosae</i>	296
<i>Erythridula kanza</i>	296
<i>Erythridula spatulata</i>	297
<i>Erythridula frisoni</i>	298
<i>Erythridula sinua</i>	298
<i>Erythridula normanti</i>	299
<i>Erythridula nigriphylla</i>	300
<i>Erythridula rhododendronae</i>	300
<i>Erythridula verdana</i>	301
<i>Erythridula victorialis</i>	302
<i>Erythridula aenea</i>	302
<i>Erythridula diffisa</i>	303
<i>Erythroneura inconspicua</i>	304
<i>Erythridula jocosa</i>	304
<i>Erythridula cuneata</i>	305
<i>Erythridula scytha</i>	306
<i>Erythridula albescens</i>	306
<i>Erythridula ampla</i>	307
<i>Erythridula freta</i>	308
<i>Erythridula lasteri</i>	308
<i>Erythridula enata</i>	309
<i>Erythridula cauta</i>	310
<i>Erythridula lyratae</i>	310
<i>Erythridula rufostigmosa</i>	311
<i>Erythridula volucris</i>	312
<i>Erythridula similalis</i>	313
<i>Erythridula abolla</i>	313
<i>Erythridula penelutea</i>	314
<i>Erythridula scissa</i>	315
<i>Erythridula eluta</i>	316
<i>Erythridula vinaria</i>	317
<i>Erythridula atrimucronata</i>	317
<i>Erythridula coarctata</i>	318
<i>Erythridula modica</i>	319
<i>Erythridula gleditsia</i>	319
<i>Erythridula clavata</i>	320
<i>Erythridula quadrata</i>	321
<i>Erythridula juncea</i>	321
<i>Erythridula apta</i>	322
<i>Erythridula nava</i>	322
<i>Erythridula barbarae</i>	323
Genus <i>Alnetoidia</i> Dlabola	324
Acknowledgements	324
References	325
Appendix I: Collections and Studied Material	328
Appendix II: Host Plant Index	331
Appendix III: Species Index	332

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Abstract

This review provides descriptions, color habitus photos, illustrations, a key for identification, and summaries of distributions and host plants for all known species of the genus *Erythridula* (135 species). *E. canadensis* sp.n. from British Columbia (Canada), *E. planerae* sp.n. from southern Illinois (USA), and *E. wyatti* sp.n. from southeastern USA are described as new; 129 new synonyms are recognized; a lectotype is designated for *Typhlocyba obliqua* var. *dorsalis* Gillette; neotypes are designated for *E. lloydi* Hepner and *E. lasteri* Hepner; *E. rhododendronae* Hepner is emended to *E. rhododendronae* Hepner.

Keywords: Auchenorrhyncha, Homoptera, leafhopper, morphology, phylogeny, taxonomy.

Introduction

The genus *Erythridula* was described by Young (1952b) as a subgenus of *Erythroneura* Fitch to comprise the *Erythroneura obliqua* species group designated by Robinson (1926a) and comprehensively revised by Beamer (1930b). In that paper Beamer provided illustrations of the male genitalia for all known species, incorporated these characters into a dichotomous key, and associated males with most of the species and varieties (=subspecies, see ICZN, 1999, Art. 45.6.4) that had been described by McAtee (1920a, 1924c, 1924d, 1926c) and previous authors based on females. Johnson (1935a) independently revised the species of *Erythroneura* sensu lato (including *Erythridula*) from Ohio and provided a key for their identification. She described many new species in this and subsequent papers (Auten & Johnson, 1936a; Johnson & Auten, 1936a, Knull 1945b, 1946a, 1951a, 1951c, 1954d). After these revisions, H.H. Ross (with D.M. DeLong) and L.W. Hepner described about 150 additional species of *Erythridula*. Dworakowska (1970b) placed *Erythridula* as a subgenus of *Arboridia* Zachvatkin. Dietrich and Dmitriev (2006a) revised the generic classification of the New World Erythroneurini and elevated *Erythridula* to the genus level.

All species of *Erythridula* are native to temperate North America, where they feed and oviposit mainly on woody deciduous trees and shrubs. Adults overwinter in leaf litter. In the spring, they emerge and feed on the new leaves of early-emerging deciduous plants before migrating to their “definitive” summer host plants where they mate and lay eggs (Ross & DeLong 1953a). Most species oviposit and undergo nymphal development on a single, or a group of closely related, plant species. In the southern USA, they complete two or more generations per year, but in the North there may be but a single generation. In the fall, adults may again feed on a variety host plants prior to seeking out winter shelter in leaf litter. Most species of *Erythridula* have no known economic importance, but few species are recorded as pests of apple (Beamer 1930a, 1932b; Ackerman & Isely, 1931a) and peach (McConnell, 1931a).

Material and Methods

Few previous workers have specifically targeted *Erythridula* in their collecting, and specimens from trap catches and other general collecting that find their way into curated collections are often in very poor condition. Because of this, and due to time and budget constraints, this study focused only on collections known to contain large numbers of well-curated specimens of *Erythridula*, as well as those housing primary types: Illinois Natural History Survey (INHS), Ohio State University (OSU), University of Kansas Natural History Museum (KSEM), Mississippi State University, Mississippi Entomological Museum (MEM), Canadian National Collection of Insects, Arachnids and Nematodes (CNC), Smithsonian National Museum of Natural History (USNM), and Colorado State University (CSUC). The numbers of studied specimens from each collection are summarized in Appendix 1. Future collecting will undoubtedly show that the distributions of most species are much broader than indicated on the maps accompanying individual species treatments. Although these maps show regional biases reflecting the locations and holdings of the studied collections, they are based on vouchered collection records and, thus, accurately reflect current knowledge of species distributions. On the maps the type locality is marked with a star.

Identification of species was mainly based on type material. In some cases, when the type was not located, or the holotype is a female (e.g., most of McAtee’s species), we followed Beamer’s (1930b) interpretation, based on study of dissected male specimens that he labeled “allotype” to indicate that they had been compared to the female primary types of previous workers. Although Beamer’s “allotypes” have no official standing in nomenclature, these dissected male specimens facilitate unambiguous interpretation of Beamer’s concept of the species.

Morphological terminology follows Dietrich and Dmitriev (2006a) (Fig. 1). Although individual species have a characteristic color pattern, details and intensity may be highly variable both inter- and intraspecifically. Overwintering individuals tend to be more brightly colored than adults of the summer generation of the same species. This has resulted in many species being described multiple

times based on different color forms. In the descriptions below, the pattern of fully colored individuals is described, although completely or almost completely discolored forms are known for most species. Thus, identification keys are based mainly on male genitalia, with external characters used only for supplemental purposes.

This work recognizes numerous synonyms treated as valid species by previous workers. Many junior synonyms represent color variants, or forms differing slightly in the shape of the aedeagus, particularly the thickness of the aedeagal shaft and slight differences in the shape, position and length of the processes. A few species were described based on specimens with the processes or tip of the aedeagal shaft broken, or aberrant forms with distorted genitalia (possibly caused by parasitism). Incorrect interpretation of the origin of the aedeagal processes when appressed to the shaft has led to description of a few more junior synonyms, and in some cases where genitalia were mounted on slides, species were described based on contaminant particles embedded in the balsam.

Each species is illustrated by one or more habitus photos taken using a Microptics digital imaging system. Original drawings were prepared only in cases where those available from other sources were deemed inaccurate. Thus, numerous figures are reproduced from other sources, as noted in the figure captions. Inconsistencies (e.g., in line thickness) among line drawings reflect differences in the drawing styles of previous authors. In all cases, figures reproduced from previous publications are either in the public domain or are reproduced with permission.

Line drawings of the male genitalia accompanying each species treatment are labeled as follows:

- a – habitus;
- b – style apex, broad aspect;
- c – aedeagus, lateral view;
- d – aedeagus, posteroventral or ventral view;
- e – pygofer or pygofer dorsal appendage, lateral view.

Nomenclatural, distributional, morphological and host-plant data summarized below were extracted from a relational specimen-level database of Erythroneurini (Dmitriev &

Dietrich, 2003 onwards), developed using the 3I software package (Dmitriev, 2006a, Dmitriev & Dietrich, 2008a). The on-line database provides more detailed information for each species, including a complete list of specimens examined, photos of type specimens, and interactive key to species.

In the species treatments below, only summer host plants are listed, although most species have also been collected from plants other than their oviposition hosts. Specimens of newly described taxa (*E. canadensis* sp.n. and *E. wyatti* sp.n.) are deposited in the insect collections of the Illinois Natural History Survey (Champaign), University of Kansas Natural History Museum (Lawrence), and Mississippi State University (State College).

Taxonomy

Subfamily Typhlocybinae

Tribe Erythroneurini Young, 1952

Genus *Erythridula* Young, 1952

Erythroneura obliqua species group
Robinson, 1926a:109

Erythroneura (Erythridula) Young,
1952b:81 (Type: *Tettigonia obliqua* Say, 1825)

Arboridia (Erythridula) Dworakowska,
1970g:615

Erythroneura (Erhthridula) Hepner,
1976d:312 (Missp.)

Erythroneura (Erythriduala) Hepner,
1976d:316 (Missp.)

Erythridula Dietrich & Dmitriev,
2006a:126

Diagnosis: Ground color usually pale, often with bold longitudinal red or orange oblique stripes; crown without pair of brown or black spots; forewing apical cells without dark spots. Male pygofer without ventral appendage or sclerotized ridge; dorsal appendage freely articulated; basolateral setae inconspicuous. Style apex with three angulate projections.

Description: Length 2.4–3.7 mm, slender. Head narrower than pronotum; crown fore margin strongly produced and angulate medially; ocelli absent or vestigial. Face depressed in profile, less than 45° from horizontal; male anteclypeus narrow, depressed, as in female. Forewing with outer apical cell about 2X as

long as wide; second apical cell with quadrate base (ir crossvein present); third apical cell parallel sided, straight; CuP vein longer than or subequal to segment of CuA between Cu and MP; basal segment of MP shorter than basal segment of CuA; inner apical cell with oblique base, basal segment of CuA and CuP veins forming continuous line; Pcu vein not visible. Hind wing apex broadly rounded; submarginal vein not extended to wing apex; RA vein present. Front femur AV row with one basal seta distinctly larger than others; PV row without fine basal setae. Pygofer apex not extended to apex of subgenital plate; lobe rounded or angulate; with dorsal emargination extended to base of segment; with oblique dorsolateral internal ridge; without dorsal macrosetae; basolateral setae undifferentiated; dorsal appendage movably articulated, usually simple, rarely with small dorsal tooth, not or only slightly extended beyond pygofer apex, curved downward; ventral appendages absent. Sternite IX with median longitudinal internal ridge. Subgenital plates free, their lateral margin with angulate subbasal

projection; section basad of medial constriction shorter than distal section; lateral margin with 3 basal macrosetae uniseriate along margin; with distinct marginal rigid setae forming continuous row; without distal macrosetae. Style free, with prominent preapical lobe, apex with 3 points. Aedeagus articulated to connective; dorsal apodeme broadly expanded in lateral view, usually connected to pygofer appendages and anal tube with distinct V-shaped ligaments; preatrium usually well developed; shaft symmetrical, with or without ventral and/or distal processes. Connective U- or V-shaped, without median anterior lobe. Anal tube without processes. Coloration variable, but all known species with crown lacking pair of fuscous preapical spots, and forewing without fuscous spot at base of inner apical cell. Usual color pattern consisting of pale or dull yellow dorsum with oblique orange or red vittae on vertex, thoracic nota, forewing clavus, and along Cu vein of corium. **Distribution:** Temperate North America. **Host plants:** Deciduous trees, shrubs.

Key to Adult Males of *Erythridula*¹

- 1. Aedeagus with ventral processes present and longer than width of aedeagal shaft in ventral view, arising at base or middle of shaft (rarely with short basal processes) (Fig. 5d, 14d, 47d, 55d)..... 2
- 1'. Aedeagus without ventral processes, or with ventral processes not longer than width of aedeagal shaft in ventral view, or, if processes long, arising at apex of shaft (Fig. 94d, 115d, 116d). 77

- 2(1). Aedeagus with two pairs of ventral processes arising basally (Fig. 3d, 5d). 3
- 2'. Aedeagus with one pair of ventral processes (Fig. 14d). 12

- 3(2). Aedeagus with long distal processes (Fig. 1d). 1. **E. lawsoniana** (Baker)
- 3'. Aedeagus with distal processes absent or small and toothlike (Fig. 4d, 8d). 4

- 4(3). Third point of style apex about half as long as distance between other two points (Fig. 1b)...5
- 4'. Third point of style apex much shorter than half distance between other two points (Fig. 7b)...9

- 5(4). Shorter pair of ventral processes of aedeagus depressed, triangular (Fig. 2c, 2d, 3c, 3d). 6
- 5'. Both pairs of ventral processes of aedeagus slender (Fig. 5c, 5d). 7

- 6(5). Angle between basal and third points of style less than 90°; third point of style expanded at apex (Fig. 2b). Often with brownish color pattern (Fig. 2a). 2. **E. electa** (McAtee)
- 6'. Angle between basal and third points of style about 90°; third point of style tapered toward apex (Fig. 3b). Coloration usual for genus, with reddish oblique vittae (Fig. 3a). 3. **E. sagittata** (Beamer)

- 7(5). Larger (2.9–3.1 mm). Abdomen pale dorsally. 4. **E. complicata** (Johnson)
- 7'. Smaller (2.6–2.9 mm). Abdomen dark dorsally (Fig. 10a). 8

- 8(7). Aedeagus with longer ventral processes divergent at base (Fig. 5d). Anterior part of body and wing apices darkened (Fig. 5a). 5. **E. bitincta** (McAtee)
- 8'. Aedeagus with longer ventral processes appressed to each other at base (Fig. 6d). Anterior part of body and wing apices not darkened (Fig. 6a). 6. **E. crataegi** (Johnson)

- 9(4). Aedeagus compressed, with dorsal carina (Fig. 7c, 7d). Style humped between basal and third points (Fig. 7b). 7. **E. intricata** (Johnson)
- 9'. Aedeagus round in cross-section, without dorsal carina (Fig. 8c, 8d, 9c, 9d). Style not humped between basal and third points (Fig. 9b). 10

- 10(9). Shorter aedeagal ventral processes only slightly longer than wide; longer aedeagal ventral processes slender, smooth (Fig. 8c, 8d). Second point of style apex about twice as long as third (Fig. 8b). Abdomen pale dorsally. 8. **E. canadensis** sp.n.
- 10'. Shorter aedeagal ventral processes at least twice as long as wide; longer aedeagal ventral processes expanded and denticulate distally (Fig. 9c, 9d). Second point of style apex shorter than third or only slightly longer than third (Fig. 9b, 10b). Abdomen dark dorsally (Fig.10a). 11

¹An interactive key for species of *Erythridula* is available from the Web site: <http://ctap.inhs.uiuc.edu/dmitriev/>

- 11(10). Second point of style apex longer than third (Fig. 9b). Larger (3.1–3.3 mm). 9. **E. occidua** (Beamer & Griffith)
- 11'. Second point of style apex shorter than third (Fig. 10b). Smaller (2.9–3 mm). 10. **E. dolosa** (Beamer & Griffith)
- 12(2). Ventral processes of aedeagus originate at middle of shaft (Fig. 14c, 14d). 13
- 12'. Ventral processes of aedeagus originate at base of shaft (Fig. 31c, 31d). 30
- 13(12). Third point of style not longer than half distance between other two points (Fig. 1b). 14
- 13'. Third point of style longer than half distance between other two points (Fig. 18b). 20
- 14(13). Ventral processes of aedeagus strongly divergent (Fig. 11d, 12d). Style with broad third point (Fig. 11b, 12b). 15
- 14'. Ventral processes of aedeagus parallel to each other or only slightly divergent (Fig. 13d). Style with slender third point (Figs. 13b, 14b). 16
- 15(14). Aedeagus round in crosssection, without distal processes; ventral processes short (Fig. 11c, 11d). 11. **E. anomala** (Knull)
- 15'. Aedeagus compressed, with distal processes small toothlike; ventral processes long, slender (Fig. 12c, 12d). 12. **E. mansueta** (Beamer)
- 16(14). Second point of style long, slender, longer than third point (Fig. 13b). 13. **E. celebrata** (Johnson)
- 16'. Second point of style short, shorter than third point (Fig. 14b). 17
- 17(16). Aedeagus without compressed dorsal distal lobe; dorsal margin of shaft straight in lateral view (Fig. 14c). Abdomen dark dorsally. 14. **E. brundusa** (Robinson)
- 17'. Aedeagus with compressed dorsal distal lobe; dorsal margin of shaft curved in lateral view (Fig. 15c). Abdomen pale dorsally. 18
- 18(17). Aedeagus with compressed dorsal distal lobe almost reaching bases of ventral processes in lateral view (Fig. 15c); aedeagal apex rounded in ventral view (Fig. 15d). 15. **E. whitti** (Hepner)
- 18'. Aedeagus with compressed dorsal distal lobe distant from bases of ventral processes in lateral view (Fig. 16c); aedeagal apex pointed in ventral view (Fig. 16d). 19
- 19(18). Second point of style well developed (Fig. 16b). Ventral processes of aedeagus straight, evenly divergent (Fig. 16d). 16. **E. rubrotincta** (Johnson)
- 19'. Second point of style very short (Fig. 17b). Ventral processes of aedeagus parallel to each other through most of length, divergent at apex (Fig. 17d). 17. **E. tridens** (Beamer)
- 20(13). Color pattern brown to black; vertex midline and commissural margin of forewing dark brown to black (Fig. 18a, 19a). 21
- 20'. Color pattern orange to red (sometimes with brown patches); vertex midline and commissural margin of forewing pale (Fig. 20a, 23a). 22
- 21(20). Apex of aedeagus rounded in lateral view (Fig. 18c). Mesonotum pale, with dark lateral triangles and apex (Fig. 18a). 18. **E. juglandis** (Knull & Auten)
- 21'. Apex of aedeagus pointed in lateral view (Fig. 19c). Mesonotum entirely dark (Fig. 19a). 19. **E. divisa** (McAtee)

22(20). Ventral processes of aedeagus strongly divergent at base, forming almost right angle with shaft (Fig. 20d, 21d). 23

22'. Ventral processes of aedeagus parallel to each other or only slightly divergent basally (Fig. 23d). 25

23(22). Aedeagus without compressed dorsal distal lobe; ventral processes straight (Fig. 20c, 20d). 20. **E. lloydi** (Hepner)

23'. Aedeagus with compressed dorsal distal lobe; ventral processes curved (Fig. 21c, 21d, 22c, 22d). 24

24(23). Aedeagus with small distal processes; ventral processes longer, curved distad in lateral view (Fig. 21c, 21d). Smaller (2.7–2.8 mm). 21. **E. morrisi** (Hepner)

24'. Aedeagus without distal processes; ventral processes shorter, straight in lateral view (Fig. 22c, 22d). Larger (2.9–3.1 mm). 22. **E. cruciformis** (Beamer)

25(22). Third point of style distinctly longer than distance between other two points (Fig. 23b). Mesonotum dark brown (Fig. 23a). 23. **E. pfrimmeri** (Hepner)

25'. Third point of style not longer than distance between other two points (Fig. 24b). Mesonotum pale (Fig. 24a). 26

26(25). Ventral processes of aedeagus depressed at base (Fig. 24d). Abdomen dark dorsally (Fig. 24a). 24. **E. autenae** (Johnson)

26'. Ventral processes of aedeagus round at base (Fig. 25d). Abdomen pale dorsally. 27

27(26). Ventral processes of aedeagus evenly divergent, extended to apex of shaft (Fig. 25d). 25. **E. martini** (Hepner)

27'. Ventral processes of aedeagus parallel at base, divergent only at apex, not extended beyond gonopore base (Fig. 26d, 28d). 28

28(27). Ventral processes of aedeagus originating in basal half of aedeagal shaft, not extended to gonopore (Fig. 26c, 26d). 26. **E. tolerata** (Knull)

28'. Ventral processes of aedeagus originating at middle of aedeagal shaft, extended to gonopore (Fig. 28c, 28d). 29

29(28). Aedeagus with lateral lobes at base of shaft (Fig. 27d). Third point of style curved (Fig. 27b). 27. **E. durni** (Hepner)

29'. Aedeagus without lateral lobes at base (Fig. 28d). Third point of style straight (Fig. 28b). 28. **E. parsonsi** (Hepner)

30(12). Aedeagus with unpaired long ventral distal process (Fig. 29c). 29. **E. afflicta** (Beamer)

30'. Aedeagus without unpaired ventral distal process (Fig. 30c). 31

31(30). Ventral processes of aedeagus evenly divergent from base (Fig. 30d, 31d). 32

31'. Ventral processes of aedeagus parallel at base, parallel or divergent at apex (Fig. 36d, 37d). 37

32(31). Third point of style apex longer than half distance between other two points (Fig. 30b, 31b). 33

32'. Third point of style apex shorter than half distance between other two points (Fig. 34b, 35b). 36

33(32). Ventral processes of aedeagus originating on preatrium (Fig. 30c). Mesonotum usually dark brown (Fig. 30a). 30. **E. noeva** (Gillette)

33'. Ventral processes of aedeagus originating at base of shaft (Fig. 31c). Mesonotum not brown (Fig. 31a). 34

- 34(33). Second point of style long (Fig. 31b). Aedeagus round in crosssection, smooth (Fig. 31c, 31d). 31. **E. nondescripta** (Johnson)
- 34'. Second point of style short (Fig. 32b, 33b). Aedeagus compressed, usually with small teeth ventrally (Fig. 32c, 32d, 33c, 33d). 35
- 35(34). Aedeagal shaft strongly curved dorsad, with ventral hump; ventral processes about half as thick at base as shaft in lateral view (Fig. 32c). 32. **E. infinita** (Beamer)
- 35'. Aedeagal shaft only slightly curved dorsad, without ventral hump; ventral processes thin at base, distinctly thinner than half shaft width in lateral view (Fig. 33c). 33. **E. spearca** (Johnson & Auten)
- 36(32). Aedeagus with compressed dorsal distal lobe, without distal processes (Fig. 34c, 34d). Pronotum and mesonotum red; forewing with red crossband at middle (Fig. 34a). 34. **E. aesculella** (Ross & DeLong)
- 36'. Aedeagus without compressed dorsal distal lobe, with short distal processes (Fig. 35c, 35d). Coloration usual for genus, with reddish oblique vittae (Fig. 35a). 35. **E. perita** (Beamer)
- 37(31). Ventral processes of aedeagus each with large tooth at middle (Fig. 36c, 37d). 38
- 37'. Ventral processes of aedeagus without large teeth at middle (Fig. 38c, 38d). 39
- 38(37). Ventral processes of aedeagus with teeth directed dorsad; distal processes present (Fig. 36c, 36d). Abdomen pale dorsally. 36. **E. haspata** (Ross & DeLong)
- 38'. Ventral processes of aedeagus with teeth directed laterad; distal processes absent (Fig. 37c, 37d). Abdomen dark dorsally. 37. **E. wysongi** (Ross & DeLong)
- 39(37). Second point of style apex well developed, elongate (Fig. 39b, 43b). 40
- 39'. Second point of style apex very short, toothlike (Fig. 53b). 54
- 40(39). Second point of style apex distinctly longer than third (Fig. 39b). 41
- 40'. Second point of style apex not longer or only slightly longer than third (Fig. 43b, 51b). 44
- 41(40). Aedeagus with long compressed dorsal distal lobe; without distal processes; ventral processes smooth (Fig. 38c, 38d). Angle between basal and third point of style apex less than 90° (Fig. 38b). 42
- 41'. Aedeagus without dorsal distal lobe; with small toothlike distal processes; ventral processes usually with small teeth or knobs (Fig. 40c, 40d, 41c, 41d). Angle between basal and third point of style apex about 90° (Fig. 40b). 43
- 42(41). Ventral processes of aedeagus almost reaching apex of shaft, curved dorsad in lateral view; aedeagal apex rounded in ventral view (Fig. 38c, 38d). 38. **E. torva** (Beamer)
- 42'. Ventral processes of aedeagus extended to gonopore only; straight or curved ventrad; aedeagal apex acuminate in ventral view (Fig. 39c, 39d). 39. **E. rubens** (Beamer)
- 43(41). Ventral processes of aedeagus depressed, with small irregularly placed knobs (Fig. 40c, 40d). 40. **E. praecisa** (Knull)
- 43'. Ventral processes of aedeagus not depressed, with small teeth on ventral surface at middle (Fig. 41c, 41d). 41. **E. aspera** (Beamer & Griffith)
- 44(40). Third point of style about twice as long as second (Fig. 43b). 45
- 44'. Third point of style about as long as second (Fig. 51b). 49
- 45(44). Aedeagal apex acuminate in ventral view; without distal processes (Fig. 42d). 42. **E. dowelli** (Beamer)
- 45'. Aedeagal apex round or truncate in ventral view; often with small toothlike distal processes. .. (Fig. 43d, 44d). 46

46(45). Aedeagus without dorsal carina; gonoduct well separated from dorsal margin throughout length of shaft; dorsal margin straight (Fig. 43c). 43. **E. furcillata** (Beamer)

46'. Aedeagus with compressed dorsal lobe distally; gonoduct near dorsal margin at base of shaft; dorsal margin sinuate (Fig. 44c). 47

47(46). Angle between basal and third points of style less than 90° (Fig. 44b). 44. **E. plena** (Beamer)

47'. Angle between basal and third points of style more than 90° (Fig. 45b, 46b). 48

48(47). Ventral processes of aedeagus evenly narrowing toward their apex, smooth (Fig. 45c, 45d). Smaller (2.4–2.5 mm). 45. **E. crossi** (Hepner)

48'. Ventral processes of aedeagus expanded and denticulate subapically (Fig. 46c, 46d). Larger (2.6–3 mm). 46. **E. funesta** (Beamer)

49(44). Ventral processes of aedeagus terminating at or near shaft apex; apex rounded or truncate in ventral view (Fig. 47d, 48d). Abdomen dark dorsally. 50

49'. Ventral processes of aedeagus terminating well short of shaft apex; apex pointed in ventral view (Fig. 49d, 50d). Abdomen pale dorsally. 51

50(49). Ventral processes of aedeagus divergent at apex, straight in lateral view, smooth (Fig. 47c, 47d). Larger (3–3.3 mm). 47. **E. rubrataeniensis** (Beamer)

50'. Ventral processes of aedeagus straight in ventral view, curved dorsad in lateral view, denticulate (Fig. 48c, 48d). Smaller (2.7–3 mm). 48. **E. repleta** (Johnson)

51(49). Aedeagal shaft round in crosssection (Fig. 49c, 49d). Smaller (2.4–2.6 mm). 49. **E. minima** (Johnson)

51'. Aedeagal shaft compressed (Figs. 50c, 50d). Larger (2.7–3.4 mm). 52

52(51). Aedeagus without basal lobes on dorsal margin (Fig 50c). Larger (3.1–3.4 mm). Pronotum and mesonotum red; forewing with red crossband at middle (Fig. 50a). 50. **E. rubroscuta** (Gillette)

52'. Aedeagus usually with basal lobes on dorsal margin (Fig. 51c, 52c). Smaller (2.7–3.1 mm). Coloration usual for genus, with reddish oblique vittae (Fig. 51a). 53

53(52). Second point of style apex forming slight but distinct angle with adjacent part of style anterolateral margin (Fig. 51b). Red stripe on clavus not continuing beyond clavus along commissural margin of forewing (Fig. 51a). 51. **E. nitida** (Beamer)

53'. Second point of style apex forming continuous curve with adjacent part of style anterolateral margin (Fig. 52b). Red stripe on clavus continuing beyond clavus along commissural margin of forewing (Fig. 52a). 52. **E. acicularis** (Beamer)

54(39). Aedeagus without dorsal carina or compressed distal lobe; apex truncate in ventral view (Fig. 53c, 53d). 53. **E. penobliqua** (Beamer)

54'. Aedeagus with dorsal carina or compressed distal lobe; apex acuminate in ventral view (Fig. 54c, 54d, 57c, 57d). 55

55(54). Ventral processes of aedeagus very short, not longer than 1/4 length of shaft (Fig. 54c, 55c). 56

55'. Ventral processes of aedeagus as long as or longer than 1/2 length of shaft (Fig. 56c, 58c). 57

- 56(55). Aedeagal shaft slender in lateral view, about 10 times longer than wide, evenly curved dorsad (Fig. 54c). With broad brown stripe along entire dorsum (Fig. 54a). 54. **E. stolata** (McAtee)
- 56'. Aedeagal shaft broad in lateral view, about 3 times longer than wide, straight (Fig. 55c). Without broad brown stripe along entire dorsum (Fig. 55a). 55. **E. ohioensis** (Knull)
- 57(55). Third point of style apex shorter than 1/3 distance between other two points (Fig. 58b). 58
- 57'. Third point of style apex longer than 1/3 distance between other two points (Fig. 70b, 71b). ... 60
- 58(57). Ventral processes of aedeagus divergent at apex (Fig. 56d). Thoracic venter dark; abdomen dark dorsally (Fig. 56a). 56. **E. fumida** (Gillette)
- 58'. Ventral processes of aedeagus parallel or convergent distally (Fig. 57d, 58d). Thoracic venter pale; abdomen pale dorsally. 59
- 59(58). Aedeagus with small distal processes; ventral processes parallel to each other on ventral side of aedeagus (Fig. 57d). 57. **E. jonesi** (Hepner)
- 59'. Aedeagus without distal processes; ventral processes divergent at base and convergent at apex (Fig. 58d). 58. **E. magnacalx** (Beamer)
- 60(57). Third point of style apex noticeably longer than distance between other two points (Fig. 59b, 60b). 61
- 60'. Third point of style apex not longer than distance between other two points (Fig. 66b, 67b). ... 67
- 61(60). Ventral processes of aedeagus originating on preatrium (Fig. 59c). Third point of style apex straight (Fig. 59b). Mesonotum usually dark brown (Fig. 59a₁). 59. **E. penenoeva** (Beamer)
- 61'. Ventral processes of aedeagus originating at base of shaft (Fig. 62c). Third point of style apex curved (Fig. 62b). Mesonotum not dark brown (Fig. 60a, 62a). 62
- 62(61). Aedeagus with long compressed dorsal distal lobe, about twice as long as broad in lateral view (Fig. 60c). 60. **E. lucileae** (Hepner)
- 62'. Aedeagus with short compressed dorsal distal lobe, not longer than broad in lateral view (Fig. 62c). 63
- 63(62). Ventral processes of aedeagus about half as long as shaft, not extended to gonopore (Fig. 61c, 61d). 61. **E. planerae** sp.n.
- 63'. Ventral processes of aedeagus more than half as long as shaft, usually extended to gonopore (Fig. 62c, 62d). 64
- 64(63). Aedeagal shaft slightly curved dorsad, compressed (Fig. 62c). Forewings red with pale apices (Fig. 62a). 62. **E. amabilis** (McAtee)
- 64'. Aedeagal shaft straight in lateral view, round in crosssection (Fig. 63c). Coloration usual for genus, with reddish oblique vittae (Fig. 63a). 65
- 65(64). Smaller (2.6–2.8 mm). Ground color pale yellow; abdomen pale dorsally (Fig. 63a). 63. **E. stylata** (Johnson)
- 65'. Larger (2.8–3 mm). Ground color dull yellow; abdomen dark dorsally (Fig. 64a, 65a). 66
- 66(65). Ventral processes of aedeagus parallel to each other, appressed to sides of shaft, straight in lateral view (Fig. 64c, 64d). 64. **E. ulmosa** (Ross & DeLong)
- 66'. Ventral processes of aedeagus touching each other ventrad of shaft, divergent at apex, curved dorsad in lateral view (Fig. 65c, 65d). 65. **E. harpax** (Beamer)

- 67(60). Ventral processes of aedeagus originating on preatrium, well separated from shaft basally (Fig. 66c). 68
- 67'. Ventral processes of aedeagus originating at base of shaft (Fig. 69c). 69
- 68(67). Shaft of aedeagus straight, with small compressed dorsal distal lobe; ventral processes only slightly curved dorsad (Fig. 66c). Smaller (2.7–2.9 mm). Abdomen dark dorsally. 66. **E. ulmalatae** (Ross & DeLong)
- 68'. Shaft of aedeagus curved dorsad, with long compressed dorsal distal lobe; ventral processes strongly curved dorsad (Fig. 67c). Large (3–3.3 mm). Abdomen pale dorsally. 67. **E. angularis** (Beamer)
- 69(67). Preatrium almost as long as aedeagal shaft; shaft sinuate in lateral view (Fig. 68c). 68. **E. sincera** (Johnson)
- 69'. Preatrium much shorter than aedeagal shaft; shaft straight or curved dorsad in lateral view (Fig. 69c). 70
- 70(69). Ventral processes of aedeagus abruptly curved laterad at middle (Fig. 69d); aedeagal shaft distinctly narrowing toward apex in lateral view (Fig. 69c). 69. **E. hamata** (Beamer)
- 70'. Ventral process not abruptly curved at middle (Fig. 70d); aedeagal shaft not or only slightly narrowing toward apex in lateral view Fig. 70c). 71
- 71(70). Ventral processes of aedeagus almost as long as shaft; compressed dorsal distal lobe broader than long in lateral view (Fig. 70c). 70. **E. unicuspidis** (Beamer)
- 71'. Ventral processes of aedeagus distinctly shorter than shaft; compressed dorsal distal lobe as long as broad or longer in lateral view (Fig. 71c, 72c). 72
- 72(71). Ventral processes of aedeagus shorter than half length of shaft; shaft straight in lateral view (Fig. 71c). 71. **E. obliqua** (Say)
- 72'. Ventral processes of aedeagus longer than half length of shaft; shaft curved dorsad (Fig. 72c). 73
- 73(72). Shaft of aedeagus with dorsolateral lobes basally (Fig. 72c, 72d). 72. **E. varia** (McAtee)
- 73'. Shaft of aedeagus without dorsolateral lobes basally (Fig. 73c, 73d, 74c, 74d). 74
- 74(73). Ventral processes of aedeagus parallel to each other on ventral side of shaft (Fig. 73c, 73d). Third point of style apex straight (Fig. 73b). 73. **E. fulvocephala** (Robinson)
- 74'. Ventral processes of aedeagus slightly divergent at base or at apex (Fig. 74c, 74d, 75c, 75d). Third point of style apex curved (Fig. 75b). 75
- 75(74). Ventral processes of aedeagus slightly divergent basally, thence parallel to each other on sides of shaft (Fig. 74d). 74. **E. bicornis** (Beamer)
- 75'. Ventral processes of aedeagus parallel to each other basally, divergent only at apex (Fig. 75d). 76
- 76(75). Third point of style apex as long as or longer than distance between other two points (Fig. 75b). Aedeagal shaft smooth (Fig. 75c). Abdomen dark dorsally (Fig. 75a). 75. **E. obvia** (Beamer)
- 76'. Third point of style apex shorter than distance between other two points (Fig. 76b). Aedeagal shaft denticulate ventrally (Fig. 76c). Abdomen pale dorsally (Fig. 76a). 76. **E. minuta** (Johnson)

- 77(1). Aedeagus with long distal processes (longer than wide or longer than width of shaft in ventral view); apex of aedeagus not produced beyond bases of processes; ventral processes absent (Fig. 77d, 78d). 78
- 77'. Aedeagus without distal processes or with small toothlike distal processes (shorter than width of shaft); ventral processes, if present, originating close to apex of shaft and apex of shaft extended beyond bases of processes (Fig. 89d, 133d, 134d). 89
- 78(77). Second point of style apex significantly longer than third (Fig. 77b). 79
- 78'. Second point of style apex not longer than third (Fig. 81b). 81
- 79(78). Aedeagus broad in lateral view, compressed (Fig. 77c, 77d). 77. **E. wyatti** sp.n.
- 79'. Aedeagus slender in lateral view, not compressed (Fig. 79c, 79d). 80
- 80(79). Second point of style distinctly longer than distance between other two points (Fig. 78b). Aedeagal shaft depressed (Fig. 78c, 78d). Smaller (3–3.3 mm). Vertex, notum, and forewings mostly reddish brown (Fig. 78a). 78. **E. lemnisca** (McAtee)
- 80'. Second point of style about as long as distance between other two points (Fig. 79b). Aedeagus round in cross-section (Fig. 79c, 79d). Larger (3.4–3.7 mm). Coloration usual for genus, with reddish oblique vittae (Fig. 79a). 79. **E. idonea** (Beamer)
- 81(78). Aedeagus with small compressed dorsal distal lobe (Fig. 80c); distal processes diamond shaped in ventral view (Fig. 80d). 80. **E. beckiae** (Hepner)
- 81'. Aedeagus without dorsal distal lobe (Fig. 81c, 82c); distal processes not diamond shaped in ventral view (Fig. 81d, 82d). 82
- 82(81). Aedeagal shaft depressed, broadened basally in ventral view (Fig. 81d, 82d). 83
- 82'. Aedeagal shaft not depressed, not broadened basally in ventral view (Fig. 83d, 84d). 84
- 83(82). Aedeagus with preatrium much shorter than shaft (Fig. 81c). Third point of style apex about half as long as distance between other two points (Fig. 81b). Forewings mostly reddish brown with pale apices (Fig. 81a). 81. **E. crevecoeuri** (Gillette)
- 83'. Aedeagus with preatrium about as long as shaft (Fig. 82c). Third point of style apex about 1/4 as long as distance between other two points (Fig. 82b). Coloration usual for genus, with reddish oblique vittae (Fig. 82a). 82. **E. malleiformis** (Beamer)
- 84(82). Third point of style apex longer than half distance between other two points (Fig. 83b). 85
- 84'. Third point of style apex shorter than half distance between other two points (Fig. 86b). 86
- 85(84). Distal processes of aedeagus directed dorsad, scarcely visible in ventral view (Fig. 83c, 83d). 83. **E. meridiana** (Hepner)
- 85'. Distal processes of aedeagus directed laterad, well visible in ventral view (Fig. 84c, 84d). 84. **E. zephyr** (Ross & DeLong)
- 86(84). Distal processes of aedeagus slender, parallel to each other at least basally (Fig. 85d, 86d). Abdomen dark dorsally. 87
- 86'. Distal processes of aedeagus divergent basally (Fig. 87d, 88d). Abdomen pale dorsally. 88
- 87(86). Aedeagus gradually narrowing toward apex in lateral view (Fig. 85c); distal processes in ventral view divergent at apex (Fig. 85d). Ground color of dorsum brownish (Fig. 85a). ... 85. **E. ilicis** (Ross)
- 87'. Aedeagus of almost equal width throughout its length in lateral view (Fig. 86c); distal processes in ventral view parallel to each other throughout length (Fig. 86d). Ground color of dorsum pale yellow (Fig. 86a). 86. **E. parvispicata** (Beamer)

88(86). Distal processes of aedeagus with two sharp points (Fig. 87d).
..... 87. **E. insigna** (Beamer & Griffith)

88'. Distal processes of aedeagus with rounded apices (Fig. 88d). 88. **E. cornipes** (Beamer)

89(77). Ventral processes of aedeagus slender, longer than wide (Fig. 90c, 90d, 91c, 91d). 90

89'. Ventral processes of aedeagus not longer than wide, usually toothlike, or absent (Fig. 122c,
122d, 123c, 123d). 109

90(89). Ventral processes of aedeagus perpendicular to shaft, expanded at apex (Fig. 89d, 90d).
..... 91

90'. Ventral processes of aedeagus directed distad, tapered toward apex (Fig. 92d). 92

91(90). Third point of style apex slender, longer than half distance between other two points (Fig.
89b). Abdomen dark dorsally. 89. **E. falcata** (Beamer)

91'. Third point of style apex broad, shorter than half distance between other two points (Fig.
90b). Abdomen pale dorsally. 90. **E. herberti** (Hepner)

92(90). Third point of style apex elongate, about as long as or longer than distance between other
two points (Fig. 91b). 93

92'. Third point of style not longer than half distance between other two points (Fig. 101b). ... 100

93(92). Aedeagus with long compressed dorsal distal lobe, at least as long as wide in lateral view
(Fig. 91c). 94

93'. Aedeagus with short compressed dorsal distal lobe, wider than long in lateral view, or with
dorsal carina (Fig. 95c, 96c). 97

94(93). Angle between basal and third points of style apex about 45° (Fig. 91b).
..... 91. **E. acutalis** (Ross & DeLong)

94'. Angle between basal and third points of style apex almost 90° (Fig. 92b). 95

95(94). Third point of style apex significantly longer than distance between other two points,
straight (Fig. 92b). Notum brownish (Fig. 92a). 92. **E. cotidiana** (Beamer)

95'. Third point of style apex not longer than distance between other two points, curved (Fig. 93b).
Notum pale with reddish oblique vittae (Fig. 93a). 96

96(95). Aedeagus with dorsal lobes basally (Fig. 93c). Abdomen dark dorsally.
..... 93. **E. tenebrosa** (Knull)

96'. Aedeagus without dorsal lobes basally (Fig. 94c). Abdomen pale dorsally.
..... 94. **E. tenuispica** (Beamer)

97(93). Aedeagus compressed, broad in lateral view (Fig. 95c, 95d).
..... 95. **E. rugosae** (Ross & DeLong)

97'. Aedeagus round in crosssection, slender in lateral view (Fig. 96c, 96d). 98

98(97). Angle between basal and third points of style apex about 45° (Fig. 96b). Ground color of
dorsum brownish (Fig. 96a). 96. **E. kanza** (Robinson)

98'. Angle between basal and third points of style apex almost 90° (Fig. 97b). Ground color of
dorsum pale yellow (Fig. 97a). 99

99(98). Ventral processes of aedeagus not extended to apex of shaft (Fig. 97d). Third point of style
apex longer than distance between other two points (Fig. 97b). Abdomen pale dorsally. ...
..... 97. **E. spatulata** (Beamer)

99'. Ventral processes of aedeagus extended to apex of shaft (Fig. 98d). Third point of style apex
shorter than distance between other two points (Fig. 98b). Abdomen dark dorsally.
..... 98. **E. frisoni** (Ross & DeLong)

- 100(92). Second point of style apex distinctly longer than third (Fig. 99b, 100b). 101
 100'. Second point of style apex not longer than third (Fig. 101b, 105b). 102
- 101(100). Aedeagus with compressed dorsal distal lobe as long as wide in lateral view (Fig. 99c).
 Third point of style apex 3 times shorter than second (Fig. 99b). Larger (2.8–3.1 mm).
 99. **E. sinua** (Johnson)
- 101'. Aedeagus with dorsal compressed distal lobe wider than long in lateral view (Fig. 100c).
 Third point of style 1.5 times shorter than second (Fig. 100b). Smaller (2.6–2.7 mm).
 100. **E. normanti** (Hepner)
- 102(100). Aedeagus with long compressed dorsal distal lobe (Fig. 101c).
 101. **E. nigriphylla** (Hepner)
- 102'. Aedeagus without compressed dorsal distal lobe (Fig. 102c, 105c). 103
- 103(102). Shaft of aedeagus compressed, with ventral hump; apex pointed in ventral view (Fig.
 102c, 102d, 103c, 103d). 104
- 103'. Shaft of aedeagus rounded in cross-section or depressed, without ventral hump (Fig. 105c,
 105d). 106
- 104(103). Larger (more than 3 mm). Clavus with bright red marking contrasting with paler color
 of corium (Fig. 103a, 104a). 105
- 104'. Smaller (less than 3 mm). Color pattern of clavus not contrasting with that of corium (Fig.
 102a). 102. **E. rhododendronae** (Hepner)
- 105(104). Second point of style apex about as long as third (Fig. 103b). Ventral processes of ae-
 deagus not extended beyond apex of shaft (Fig. 103d). Forewing with apex of clavus red
 (Fig. 103a). 103. **E. verdana** (Ross & DeLong)
- 105'. Second point of style very short (Fig. 104b). Ventral processes of aedeagus extended beyond
 apex of shaft (Fig. 104d). Red markings of forewings together forming V-shaped pattern
 (Fig. 104a). 104. **E. victorialis** (Knull)
- 106(103). Second point of style apex well developed, longer than wide; angle between basal and
 third points 90° or more (Fig. 105b, 106b). Aedeagal shaft straight in lateral view (Fig.
 105c, 106c). Abdomen dark dorsally. 107
- 106'. Second point of style apex very short; angle between basal and third points less than 90°
 (Fig. 107b, 108b). Aedeagal shaft curved dorsad (Fig. 107c, 108c). Abdomen pale dor-
 sally. 108
- 107(106). Second point of style apex about as long as third (Fig. 105b). Aedeagal shaft with
 pointed apex in ventral view (Fig. 105d). 105. **E. aenea** (Beamer)
- 107'. Second point of style apex about half as long as third (Fig. 106b). Aedeagal shaft with round-
 ed apex in ventral view (Fig. 106d). 106. **E. diffisa** (Beamer)
- 108(106). Aedeagal shaft round in cross-section, evenly curved in lateral view, with small com-
 pressed dorsal distal lobe (Fig. 107c). 107. **E. inconspicua** (Johnson)
- 108'. Aedeagal shaft depressed, curved basally, thence straight in lateral view, without dorsal distal
 lobe (Fig. 108c). 108. **E. jocosu** (Beamer)
- 109(89). Third point of style apex longer than half distance between other two points (Fig. 109b).
 110
- 109'. Third point of style apex not longer than half distance between other two points (Fig. 125b).
 127

110(109). Aedeagus with compressed dorsal distal lobe; apex usually acuminate in ventral view; usually without distal processes (Fig. 111c, 111d). 111

110'. Aedeagus without dorsal distal lobe; apex usually truncate in ventral view; with small distal processes (Fig. 119c, 119d). 119

111(110). Aedeagal shaft very long and slender, about 10 times as long as wide (Fig. 54c, 54d). With broad brown stripe along entire dorsum (Fig. 54a). 54. **E. stolata** (McAtee)

111'. Aedeagal shaft shorter, not more than 5 times as long as wide (Fig. 111c, 111d). Coloration usual for genus, with reddish oblique vittae (Fig. 111a). 112

112(111). Third point of style apex as long as or longer than distance between other two points (Fig. 109b). 113

112'. Third point of style apex shorter than distance between other two points (Fig. 114b). 117

113(112). Aedeagus with preatrium about as long as shaft; angle between preatrium and shaft less than 90° (Fig. 109c). Abdomen dark dorsally. 109. **E. cuneata** (Beamer)

113'. Aedeagus with preatrium shorter than shaft; angle between preatrium and shaft more than 90° (Fig. 110c). Abdomen pale dorsally. 114

114(113). Aedeagus with pair of small toothlike processes at base of shaft (Fig. 110c, 110d). 110. **E. scytha** (Auten & Johnson)

114'. Aedeagus without ventral processes or with pair of ventral processes arising at middle of shaft (Fig. 111c, 111d, 113c, 113d). 115

115(114). Aedeagus round in crosssection, curved dorsad (Fig. 111c). Third point of style apex recurved at tip (Fig. 111b). 111. **E. albescens** (Beamer)

115'. Aedeagus compressed, straight (Fig. 112c, 113c). Third point of style apex not recurved at tip (Fig. 112b, 113b). 116

116(115). Third point of style apex straight (Fig. 112b). Aedeagal shaft with ventral hump (Fig. 112c). 112. **E. ampla** (Knull)

116'. Third point of style apex curved (Fig. 113b). Aedeagal shaft without ventral hump (Fig. 113c). 113. **E. freta** (Knull)

117(112). Aedeagus with very short compressed dorsal distal lobe; shaft with ventral hump, curved basally, thence straight in lateral view (Fig. 114c). 114. **E. lasteri** (Hepner)

117'. Aedeagus with long compressed dorsal distal lobe, at least as long as wide in lateral view; shaft without ventral hump, evenly curved in lateral view (Fig. 115c, 116c). 118

118(117). Aedeagus with small toothlike ventral processes (sometimes strongly reduced) (Fig. 115c, 115d). Abdomen pale dorsally. 115. **E. enata** (Knull)

118'. Aedeagus without ventral processes (Fig. 116c, 116d). Abdomen dark dorsally. 116. **E. cauta** (Beamer)

119(110). Aedeagal shaft depressed (Fig. 117c, 117d). 120

119'. Aedeagal shaft round or compressed (Fig. 120c, 120d, 121c, 121d). 122

120(119). Second point of style longer than distance between other two points (Fig. 119b). Pygofer dorsal appendage with dorsal tooth or hump (Fig. 119e). 121

120'. Second point of style not longer than distance between other two points (Fig. 117b). Pygofer dorsal appendage without dorsal tooth or hump (Fig. 117e). 117. **E. lyratae** (Ross & DeLong)

- 121(120). Aedeagus without ventral processes (Fig. 118d). Vertex, notum, and clavus reddish brown to dark brown; abdomen dark dorsally (Fig. 118a₁–118a₃). 118. **E. rufostigmosa** (Beamer)
- 121'. Aedeagus usually with small toothlike processes usually arising at apex of shaft (Fig. 119d₁–119d₃). Coloration usual for genus, with reddish oblique vittae; abdomen pale dorsally (Fig. 119a). 119. **E. volucris** (Beamer)
- 122(119). Section of aedeagus extended beyond gonopore long, about twice as long as width of aedeagus in lateral view (Fig. 120c). 120. **E. similalis** (Ross & DeLong)
- 122'. Section of aedeagus extended beyond gonopore short, not longer than width of aedeagus in lateral view (Fig. 121c). 123
- 123(122). Bright yellow with dark brown or black stripe along entire dorsum (Fig. 19a). 19. **E. divisa** (McAtee)
- 123'. Without dark stripe along entire dorsum (Fig. 121a, 122a). 124
- 124(123). Forewings reddish brown with pale apices (Fig. 121a). 121. **E. abolla** (McAtee)
- 124'. Coloration usual for genus; forewings with reddish oblique vittae (Fig. 122a). 125
- 125(124). Ventral processes of aedeagus separated from gonopore by more than width of shaft (Fig. 122c). Abdomen dark dorsally; mesonotum usually brownish (Fig. 122a). 122. **E. penelutea** (Beamer)
- 125'. Ventral processes of aedeagus separated from gonopore by no more than width of shaft (Fig. 123c, 124c). Abdomen pale dorsally; mesonotum pale (Fig. 123a). 126
- 126(125). Third point of style apex shorter than distance between other two points (Fig. 123b). Ventral processes of aedeagus arising closer to gonopore; distal processes directed laterad, well visible in lateral view (Fig. 123c, 123d). 123. **E. scissa** (Beamer)
- 126'. Third point of style apex longer than distance between other two points (Fig. 124b). Ventral processes of aedeagus arising more proximal from gonopore; distal processes directed dorsad, scarcely visible in lateral view (Fig. 124c, 124d). 124. **E. eluta** (McAtee)
- 127(109). Ventral processes of aedeagus originating near middle of shaft; shaft compressed (Fig. 125c, 125d, 126c, 126d). Ground color of dorsum reddish brown (Fig. 125a, 126a). .. 128
- 127'. Ventral processes of aedeagus originating near apex of shaft or absent (Fig. 127c, 127d, 133c, 133d). Ground color of dorsum pale yellow (Fig. 127a). 129
- 128(127). Ventral processes of aedeagus about as long as width of aedeagal shaft in ventral view (Fig. 125d). Smaller (2.8–3 mm). Sides of vertex and pronotum concolorous with rest of vertex and pronotum (Fig. 125a). 125. **E. vinaria** (Beamer)
- 128'. Ventral processes of aedeagus much shorter than width of aedeagal shaft in ventral view (Fig. 126d). Larger (3.1–3.3 mm). Sides of vertex and pronotum contrasting pale yellow (Fig. 126a). 126. **E. atrimucronata** (Beamer)
- 129(127). Aedeagus with small toothlike ventral processes arising at shaft apex (Fig. 127c, 127d). 130
- 129'. Aedeagus without ventral processes (Fig. 133c, 133d). 134
- 130(129). Angle between basal and third points of style apex 45° or less (Fig. 127b). 131
- 130'. Angle between basal and third points of style apex 90° or more (Fig. 130b). 132

- 131(130). Aedeagus with small compressed dorsal distal lobe, without distal processes (Fig. 127c, 127d). Posterior margin of style straight (Fig. 127b). Abdomen dark dorsally. 127. **E. coarctata** (Beamer)
- 131'. Aedeagus without dorsal distal lobe, with small distal processes (Fig. 128c, 128d). Posterior margin of style humped (Fig. 128b). Abdomen pale dorsally. 128. **E. modica** (Beamer)

- 132(130). Aedeagus with small compressed dorsal distal lobe; apex rounded in ventral view (Fig. 129c, 129d). Second point of style apex small toothlike (Fig. 129b). 129. **E. gleditsia** (Beamer)
- 132'. Aedeagus without dorsal distal lobe; apex truncate in ventral view (Fig. 131c, 131d). Second point of style apex well developed (Fig. 131b). 133

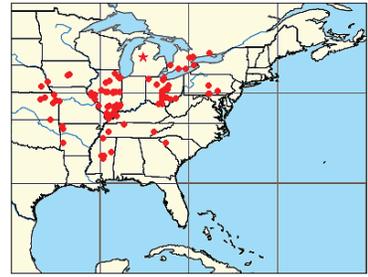
- 133(132). Aedeagal shaft straight in lateral view (Fig. 130c). Forewings with oblique vittae on clavus usually brighter than those on corium (Fig. 130a). 130. **E. clavata** (DeLong)
- 133'. Aedeagal shaft curved dorsad (Fig. 131c). Forewings with oblique vittae on clavus and corium concolorous (Fig. 131a). 131. **E. quadrata** (Beamer)

- 134(129). Third point of style apex about half as long as distance between other two points (Fig. 132b). Forewings with oblique vittae on clavus brighter than those on corium (Fig. 132a). 132. **E. juncea** (Beamer)
- 134'. Third point of style apex about 1/4 as long as distance between other two points (Fig. 133b). Forewings with oblique vittae concolorous on clavus and corium (Fig. 133a). 135

- 135(134). Aedeagus with small dorsal distal lobe (Fig. 133c); apex acuminate in ventral view (Fig. 133d). 133. **E. apta** (Beamer)
- 135'. Aedeagus without dorsal distal lobe (Fig. 134c, 135c); apex expanded in ventral view (Fig. 134d, 135d). 136

- 136(135). Angle between basal and third points of style apex about 45° (Fig. 134b). Aedeagal shaft curved dorsad (Fig. 134c). 134. **E. nava** (Beamer)
- 136'. Angle between basal and third points of style apex about 90° (Fig. 135b). Aedeagal shaft straight in lateral view (Fig. 135c). 135. **E. barbarae** (Hepner)

1. *Erythridula lawsoniana* (Baker, 1926) (Fig. 1)
Typhlocyba obliqua var. *dorsalis* Gillette, 1898a:757 (sec.
 hom.: *Zygina dorsalis* Horváth, 1897b)
Erythroneura lawsoni Baker, 1925b:537, n.nov. (prim.
 hom.: *Erythroneura lawsoni* Robinson, 1924)
Erythroneura lawsoniana Baker, 1926a:347, n.nov.
Erythroneura (Erythridula) lawsoniana Young, 1952b:83
Arboridia (Erythridula) dorsalis Dworakowska,
 1970g, 615
Erythridula lawsoniana Dietrich & Dmitriev, 2006a:129



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points more than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, compressed, with dorsal carina; aedeagal apex round in ventral view; two pairs of ventral processes placed basally: one pair parallel to shaft, slightly curved, another strongly divergent; distal processes long, subapical, slender. Dorsum yellowish with red and brown color pattern; vertex with oblique lateral vittae or large basal dark area often extended onto thorax, midline pale or dark; anteclypeus pale; pronotum dark with pale lateral margins; mesonotum entirely dark; thoracic venter with dark mesosternum, remainder pale; forewings with fused oblique vittae; clavus largely bright red or brown; abdomen dark dorsally.

Type locality: Lectotype ♂, USA, Michigan, (CSUC), with label CSU7, here designated.

Studied material: Paralectotypes 1 ♂, 1 ♀, USA, Michigan, (CSUC), here designated.

Distribution: Central and northeastern USA, southeastern Canada.

Host plants: *Malus pumila*.

Notes: We designate a lectotype from the original series of syntypes to stabilize the concept of this species name.

The original name of the species, *Typhlocyba obliqua* var. *dorsalis* Gillette, 1898, was replaced with *Erythroneura lawsoniana* (Baker, 1926a) because it was considered congeneric with *Zygina dorsalis* Horváth, 1897. Later Dworakowska (1970g) proposed to restore the original name of the Gillette species because it was no longer congeneric with *Z. dorsalis* Horváth. But according to Article 59.3 (ICZN, 1999) “a junior secondary homonym replaced before 1961 is permanently invalid unless the substitute name is not in use...” The name *E. lawsoniana* Baker is still in use (Metcalf, 1968a; Maw et al., 2000a; Dietrich & Dmitriev, 2006a; and several on-line databases) and so cannot be restored.

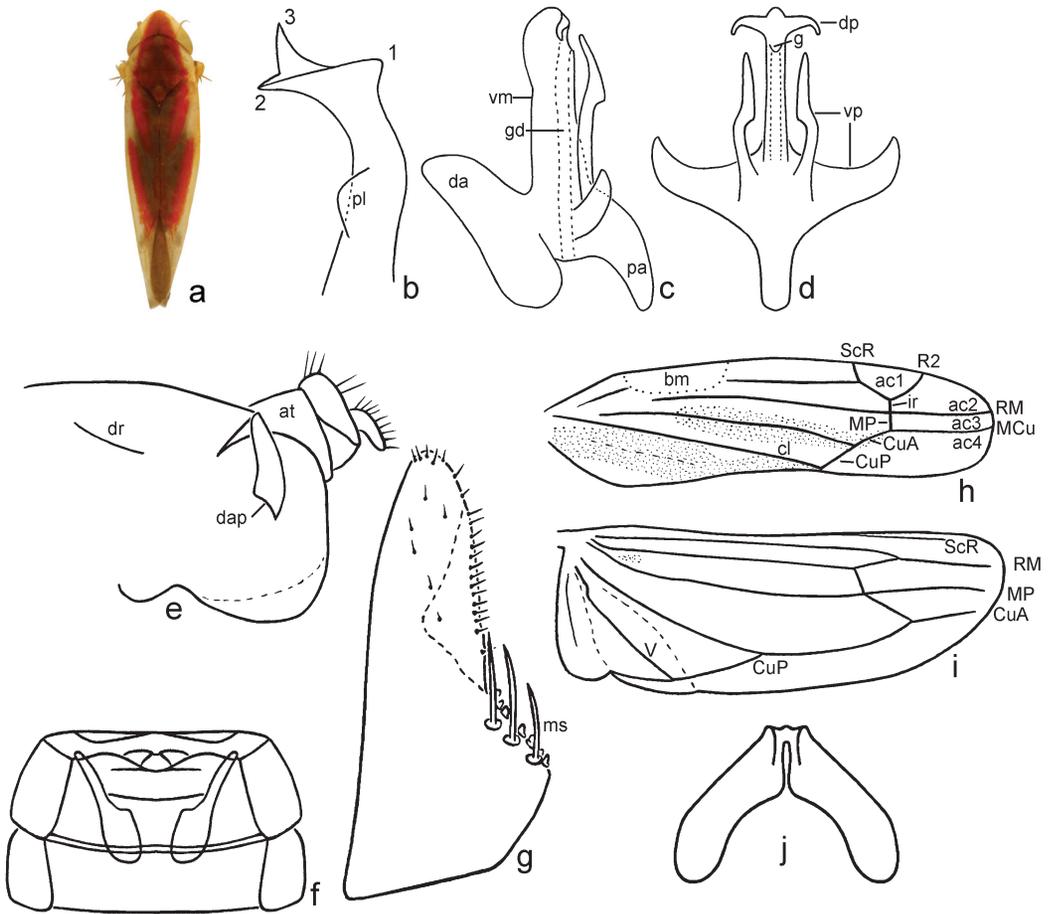


Figure 1. *E. lawsoniana* (Baker). a – habitus; b – style apex, broad aspect; c – aedeagus, lateral view; d – aedeagus, ventral view; e – pygofer, lateral view; f – base of abdomen and 2S apodemes, ventral view; g – genital plate, ventral view; h – forewing; i – hind wing; j – connective. Abbreviations: ac1–ac4 – apical cells; at – anal tube; bm – brochosome field; cl – clavus; da – dorsal apodeme; dap – dorsal appendage; dr – dorsolateral internal ridge; g – gonopore; gd – gonoduct; ir – interradiar crossvein; ms – basal macrosetae; pa – preatrium; pl – preapical lobe; vm – ventral margin; vp – ventral processes.

2. *Erythridula electa* (McAtee, 1920) (Fig. 2)

Erythronaura obliqua var. *electa* McAtee, 1920a:282

Erythronaura electa Beamer, 1930b:418

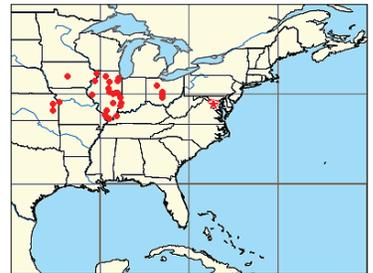
Erythronaura (*Erythridula*) *electa* Young, 1952b:83

Erythronaura tietzi Ross & DeLong, 1953a:85, **syn.n.**

Erythronaura ampasa Ross & DeLong, 1953a:86, **syn.n.**

Erythronaura (*Erythridula*) *benedicti* Hepner, 1976b:124, **syn.n.**

Erythridula electa Dietrich & Dmitriev, 2006a:128



Description: Length 2.5–2.8 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex short; third point elongate, longer than half distance between other two points, expanded at apex; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped

ligaments; preatrium shorter than shaft; shaft straight and broad in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex broadened in ventral view; two pairs of ventral processes placed basally: one pair parallel and appressed to shaft, another short triangular depressed; distal processes short, toothlike, apical. Dorsum yellowish, with reddish brown color pattern; vertex with oblique lateral vittae, midline pale; anteclypeus brown; pronotum with two longitudinal stripes; mesonotum darkened; thoracic venter entirely dark; forewings with oblique vittae often fused together; abdomen dark dorsally.

Type locality: Holotype ♀, USA, Virginia, Arlington [as Alexandria] Co., Maywood, 12 III 1916 (McAtee), (USNM).

Distribution: Central and northeastern USA.

Host plants: *Crataegus mollis* and probably other species of *Crataegus*.

Notes: The holotype of *E. ampasa* Ross & DeLong is an aberrant specimen with undeveloped genitalia.

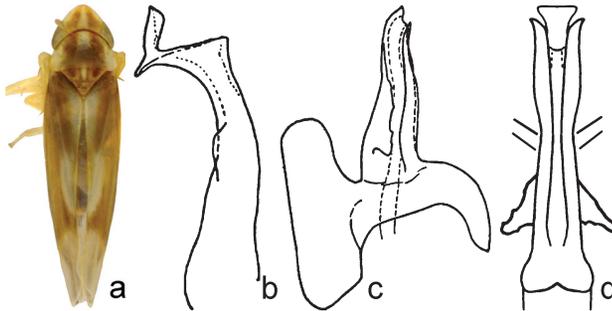


Figure 2. *E. electa* (McAtee). b, c – from Ross & DeLong, 1953a.

3. *Erythridula sagittata* (Beamer, 1930) (Fig. 3)

Erythroneura sagittata Beamer, 1930b:440

Erythroneura (Erythridula) sagittata Young,

1952b:84

Erythroneura (Erythridula) jeanae Hepner,
1976a:205, **syn.n.**

Erythridula sagittata Dietrich & Dmitriev,
2006a:130



Description: Length 2.6–2.9 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view; compressed; without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; two pairs of ventral processes placed basally: one pair parallel to each other appressed to shaft, another short triangular and depressed; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Gallatin Co., 31 III 1929 (Oman), (KSEM).

Distribution: Central and northeastern USA.

Host plants: *Crataegus viridis*, *C. marshallii*.

Notes: The holotype was collected by Oman, not by Beamer as was erroneously stated in the original publication.

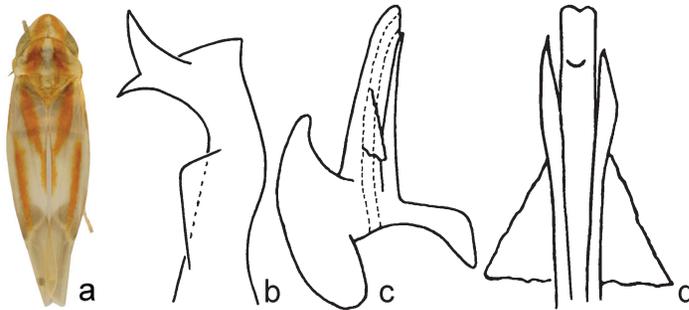


Figure 3. *E. sagittata* (Beamer). d – from Hepner, unpublished.

4. *Erythridula complicata* (Johnson, 1935) (Fig. 4)
Erythroneura complicata Johnson, 1935a:87
Erythroneura (Erythridula) complicata Young, 1952b:82
Erythridula complicata Dietrich & Dmitriev, 2006a:128



Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft; shaft curved ventrad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; two pairs of ventral processes placed basally: one pair parallel to shaft, slender, slightly expanded at apex, another strongly divergent, short; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Pickaway Co., 9 IV 1934 (Caldwell), (OSU).

Distribution: Central USA.

Host plants: Unknown. Johnson (1935a) recorded the species from *Carpinus* sp.

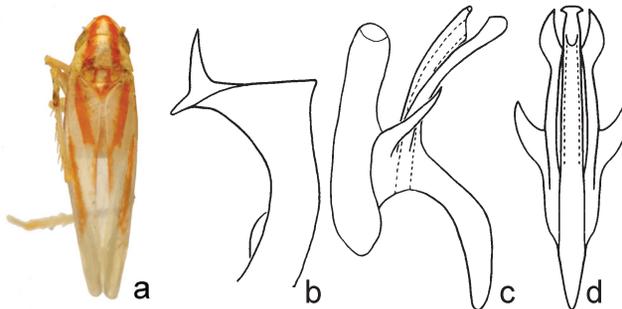


Figure 4. *E. complicata* (Johnson).

5. *Erythridula bitincta* (McAtee, 1926) (Fig. 5)
Erythroneura obliqua var. *bitincta* McAtee, 1926c:130
Erythroneura bifurca Beamer, 1930b:422
Erythroneura bitincta Johnson, 1935a:52



Erythroneura (Erythridula) bitincta Young, 1952b:82

Erythroneura (Erythridula) dorisae Hepner, 1976a:204, **syn.n.**

Erythridula bitincta Dietrich & Dmitriev, 2006a:127

Description: Length 2.6–2.8 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft; shaft curved ventrad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened in ventral view; two pairs of ventral processes placed basally; one pair parallel to shaft, slender, another strongly divergent, short; distal processes short, tooth-like, apical, or absent. Coloration usual for genus, but anterior part of body and tips of forewings darkened; anteclypeus dark; thoracic venter entirely dark; abdomen dark dorsally.

Type locality: Holotype ♂, Canada, Ontario, Toronto, 8 VIII 1924 (Ball), (USNM).

Distribution: Northwestern, central, and eastern USA, southern Canada.

Host plants: *Crataegus* spp.

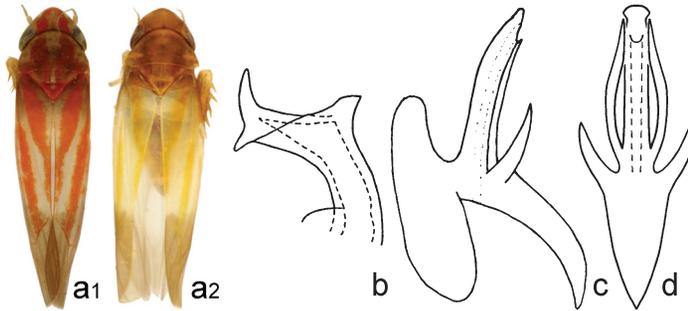


Figure 5. *E. bitincta* (McAtee). a2 – holotype; b – from Young, 1952b.

6. *Erythridula crataegi* (Johnson, 1935) (Fig. 6)

Erythroneura crataegi Johnson, 1935a:61

Erythroneura (Erythridula) crataegi Young, 1952b:82

Erythridula crataegi Dietrich & Dmitriev, 2006a:128



Description: Length 2.7–2.9 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved ventrad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened in ventral view; two pairs of ventral processes placed basally: one pair parallel to shaft, slender, slightly expanded at apex, another strongly divergent, short; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus brown; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Ohio, Hancock Co., on *Crataegus* sp., 18 VIII 1934 (Auten), (OSU).

Distribution: Central and southeastern USA.

Host plants: *Crataegus* spp.

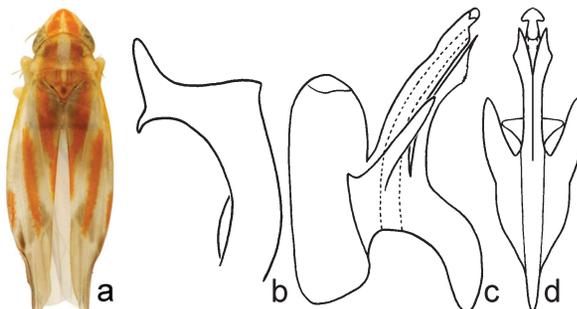


Figure 6. *E. crataegi* (Johnson). a – holotype.

7. *Erythridula intricata* (Johnson, 1935) (Fig. 7)

Erythreaura intricata Johnson, 1935a:86

Erythreaura (*Erythridula*) *intricata* Young,
1952b:83

Erythridula intricata Dietrich & Dmitriev, 2006a:129



Description: Length 3–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point very short; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved ventrad, slender in lateral view, compressed, with dorsal carina; aedeagal apex truncate in ventral view; two pairs of ventral processes placed basally: one pair parallel to shaft, slender, with ventral tooth, another strongly divergent, short; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Pickaway Co., 31 III 1934 (Caldwell), (OSU).

Distribution: Northern central USA.

Host plants: Unknown.

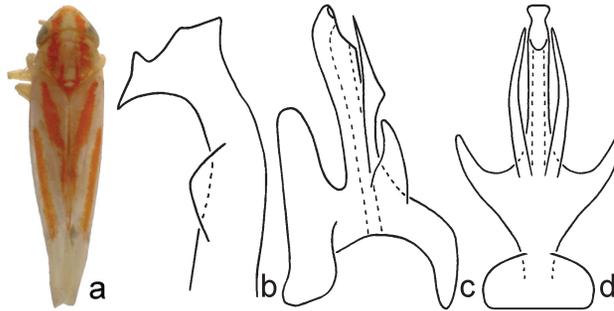


Figure 7. *E. intricata* (Johnson). a –allotype.

8. *Erythridula canadensis* sp.n. (Fig. 8)

Description: Length 2.9–3 mm. Pygofer lobe rounded. Second point of style apex longer than third; third point short; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments, connected to anal tube and pygofer appendages; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex acuminate in ventral view; two pairs of ventral processes placed basally: one pair parallel to shaft, slender, another strongly divergent, very short; distal processes absent. Dorsum pale yellow, with red or orange color pattern; vertex with oblique lateral vittae, midline pale; anteclypeus pale, concolorous with rest of face; pronotum pale with two longitudinal stripes; mesonotum entirely pale; thoracic venter pale; forewings with oblique vittae, without crossbands; clavus with continuous vitta parallel to suture; abdomen pale dorsally.



Diagnosis: *E. canadensis* sp.n. is similar to *E. occidua* Beamer & Griffith by the shape of style, but new species is smaller and aedeagus without distal processes. Shape of aedeagus similar to *E. dolosa* Beamer & Griffith, but the latter has longer ventral processes depressed, while the new species has longer ventral processes round and shorter ventral processes very short.

Type locality: Holotype ♂, Canada, British Columbia, Vernon, 5 VIII 1931 (Beamer), (KSEM).

Studied material: Paratype 1 ♂, same label data.

Distribution: Known only from the type locality in British Columbia.

Host plants: Unknown.

Notes: Species name refers to the country of origin of the type series.

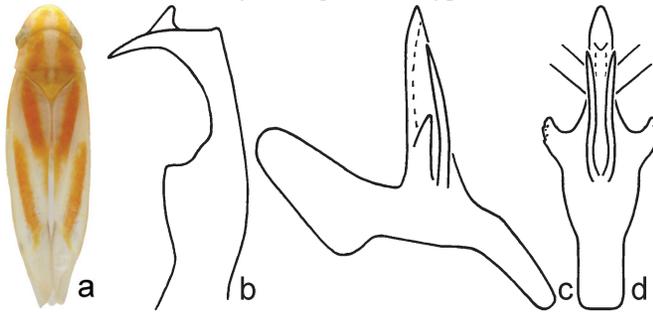


Figure 8. *E. canadensis* sp.n. a – holotype.

9. *Erythridula occidua* (Beamer & Griffith, 1935), **comb.n., status n.** (Fig. 9)

Erythroneura dolosa var. *occidua* Beamer & Griffith, 1935a:19

Erythroneura dolosa var. *interjecta* Beamer & Griffith, 1935a:20, **syn.n.**



Description: Length 3.1–3.3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point very short; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved ventrad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened in ventral view; two pairs of ventral processes placed basally: one pair parallel to shaft, slender, depressed and expanded at apex, another strongly divergent, short; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; mesonotum entirely pale yellow to brown; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, California, Marin Co., 3 VIII 1929 (Beamer), (KSEM).

Distribution: California.

Host plants: Unknown.

Notes: *E. dolosa* var. *interjecta* Beamer & Griffith differs from *E. occidua* Beamer & Griffith only in the paler mesonotum (Fig. 9a₂), which varies interspecifically among other species of *Erythridula*. The male genitalia of the two taxa are identical.

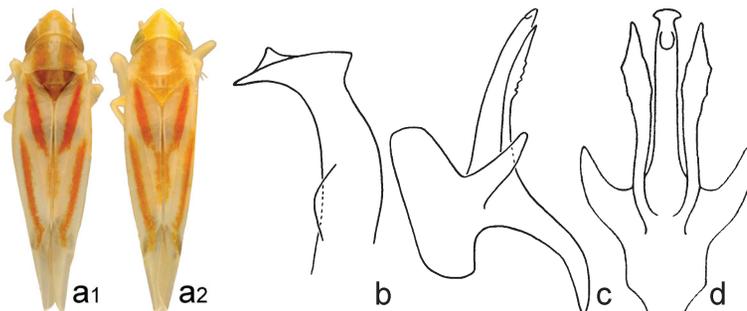


Figure 9. *E. occidua* (Beamer & Griffith). a₂ – color var. *interjecta*; d – from Beamer & Griffith, 1935a.

10. *Erythridula dolosa* (Beamer & Griffith, 1935) (Fig. 10)
Erythroneura dolosa Beamer & Griffith, 1935a:19
Erythroneura (Erythridula) dolosa Young, 1952b:83
Erythridula dolosa Dietrich & Dmitriev, 2006a:128



Description: Length 3–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex bluntly tapered in ventral view; two pairs of ventral processes placed basally: one pair parallel to shaft, slender, depressed and expanded at apex, another strongly divergent, short; distal processes short, toothlike, apical, or absent. Coloration usual for genus; anteclypeus pale; mesonotum brownish; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Washington, Spokane Co., Spokane, on *Crataegus* sp., 8 VIII 1931 (Beamer), (KSEM).

Distribution: Northwestern USA, southwestern Canada.

Host plants: *Crataegus* sp.

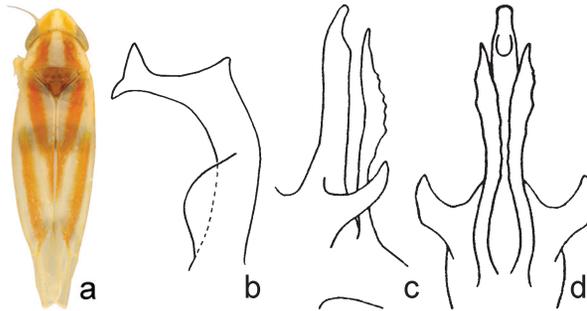


Figure 10. *E. dolosa* (Beamer & Griffith). c, d – from Beamer & Griffith, 1935a.

11. *Erythridula anomala* (Knull, 1946) (Fig. 11)
Erythroneura anomala Knull, 1946a:46
Erythroneura (Erythridula) anomala Young, 1952b:82
Erythridula anomala Dietrich & Dmitriev, 2006a:127



Description: Pygofer lobe rounded. Second point of style apex longer than third; third point very short and broad; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, evenly divergent, depressed basally; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Hocking Co., 26 IV 1938 (Knull), (OSU).

Distribution: Ohio.

Host plants: Unknown; one specimen collected on *Carpinus* sp.

Notes: The genitalia of the holotype are mounted on a slide, thus, the drawings may be somewhat distorted. Body length could not be measured due to the condition of the specimens.

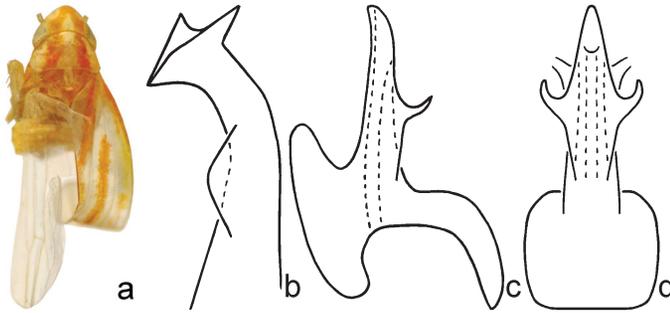


Figure 11. *E. anomala* (Knull).

12. *Erythridula mansueta* (Beamer, 1935) (Fig. 12)

Erythroneura mansueta Beamer, 1935a:98

Erythroneura (Erythridula) mansueta Young,
1952b:83

Erythridula mansueta Dietrich & Dmitriev,
2006a:129



Description: Length 3–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point short and broad, with its base reaching first point; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex blunt in ventral view; ventral processes arising near midlength of shaft, slender, evenly divergent, often bifurcate at apex; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Ilex decidua*.

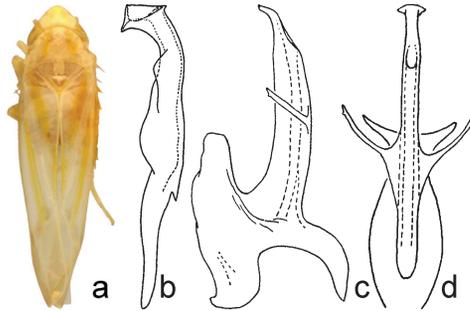


Figure 12. *E. mansueta* (Beamer). b–d – from Ross, 1953b.

13. *Erythridula celebrata* (Johnson, 1935) (Fig. 13)

Erythronera celebrata Johnson, 1935a:82
Erythronera (Erythridula) celebrata Young,
 1952b:82
Erythridula celebrata Dietrich & Dmitriev,
 2006a:127



Description: Length 2.8–2.9 mm. Pygofer lobe rounded. Second point of style apex longer than third; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with small dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, slender, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Hocking Co., Cantwell Cliffs, Hocking Hills State Park, 23 X 1932 (Johnson), (OSU).

Distribution: Central and southeastern USA.

Host plants: Unknown.

Notes: The slide with holotype genitalia is missing.

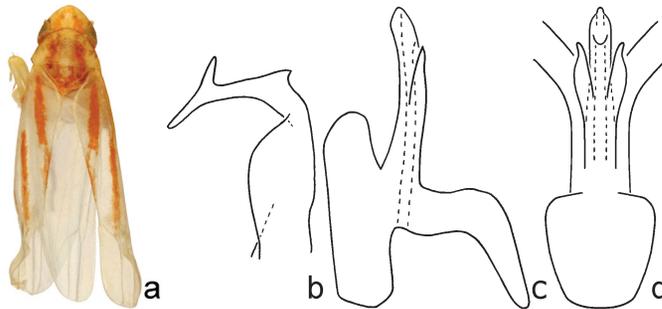
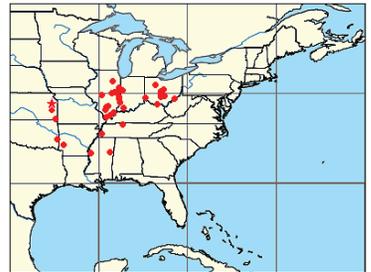


Figure 13. *E. celebrata* (Johnson).

14. *Erythridula brundusa* (Robinson, 1924) (Fig. 14, Plate 1c)

Erythronera brundusa Robinson, 1924b:155
Erythronera (Erythridula) brundusa Young,
 1952b:82
Erythronera (Erythridula) uniforma Hepner,
 1976d:315, **syn.n.**
Erythridula brundusa Dietrich & Dmitriev,
 2006a:127



Description: Length 3.2–3.4 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex acuminate in ventral view. Aedeagus ventral processes arising near midlength of shaft, slender, slightly divergent; distal processes absent. Coloration usual for genus; background color dull yellow; color pattern blurred; anteclypeus pale;

thoracic venter entirely pale or dark; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., IV, (KSEM).

Distribution: Central USA.

Host plants: *Gleditsia triacanthos*.

Notes: *E. uniforma* Hepner was described based on a specimen with broken ventral processes of aedeagus.

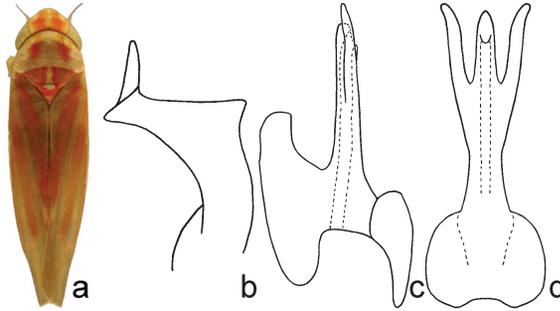


Figure 14. *E. brundusa* (Robinson).

15. *Erythridula whitti* (Hepner, 1976) (Fig. 15)

Erythroneura (Erythridula) whitti Hepner,
1976b:123

Erythridula whitti Dietrich & Dmitriev, 2006a:131

Description: Length 3–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex round in ventral view; ventral processes arising near midlength of shaft, slender, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Mississippi, Oktibbeha Co., State College, on *Ulmus rubra*, 8 VIII 1967 (Hepner), (INHS).

Distribution: Central USA.

Host plants: *Ulmus rubra*, *U. alata*.

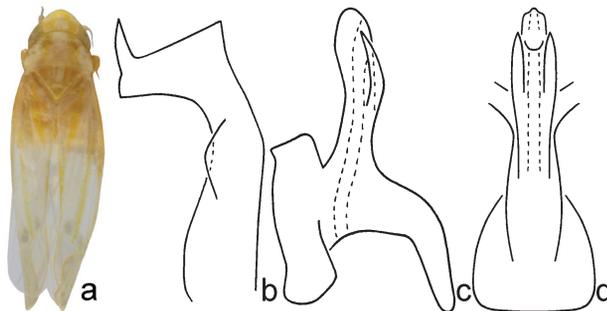
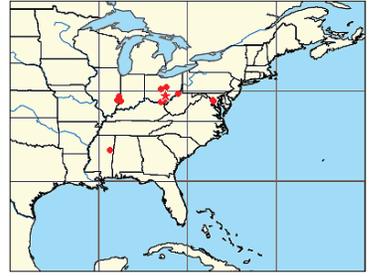


Figure 15. *E. whitti* (Hepner).

16. *Erythridula rubrotincta* (Johnson, 1935) (Fig. 16)
Erythroneura rubrotincta Johnson, 1935a:91
Erythroneura (Erythridula) rubrotincta Young,
 1952b:84
Erythroneura (Erythridula) fultonae Hepner,
 1976d:314, **syn.n.**
Erythridula rubrotincta Dietrich & Dmitriev,
 2006a:130



Description: Length 3–3.2 mm. 2S abdominal apodemes small, narrow, extended dorsomesad. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, slender, slightly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Hocking Co., 15 IV 1934 (Caldwell), (OSU).

Distribution: Central and northeastern USA.

Host plants: Unknown; Johnson (1935a) recorded this species from *Carpinus* sp.

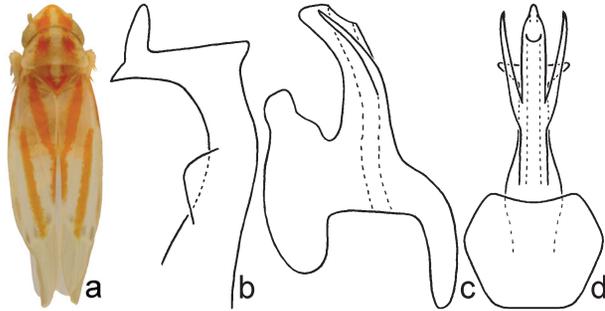
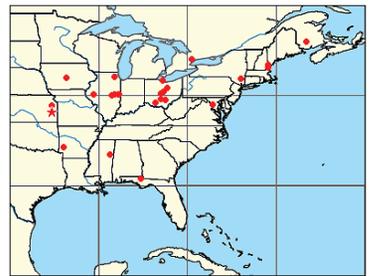


Figure 16. *E. rubrotincta* (Johnson).

17. *Erythridula tridens* (Beamer, 1930) (Fig. 17)
Erythroneura tridens Beamer, 1930b:450
Erythroneura (Erythridula) tridens Young, 1952b:84
Erythroneura (Erythridula) styraxae Hepner,
 1976c:300, **syn.n.**
Erythroneura (Erythridula) ampaiae Hepner,
 1976d:314, **syn.n.**
Erythridula tridens Dietrich & Dmitriev, 2006a:131



Description: Length 3.1–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, slender, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Anderson Co., 9 IX 1927 (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Tilia americana*.

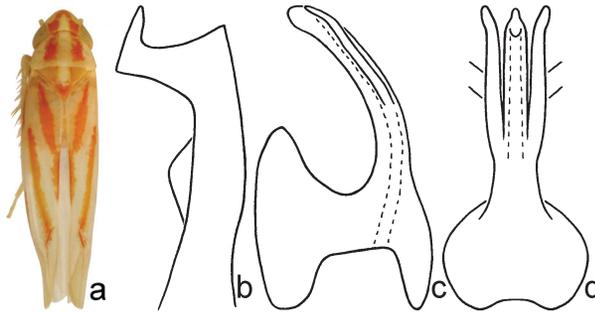


Figure 17. *E. tridens* (Beamer).

18. *Erythroneura juglandis* (Knull & Auten, 1938) (Fig. 18)

Erythroneura juglandis Knull & Auten, 1938a:532

Erythroneura (Erythroneura) juglandis Young,
1952b:83

Erythroneura juglandis Dietrich & Dmitriev,
2006a:129

Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex rounded in ventral view; ventral processes arising near midlength of shaft, evenly divergent; distal processes short, toothlike, apical. Dorsum bright yellow with brown color pattern; vertex with large basal dark area, extended onto pronotum, midline dark; anteclypeus pale; pronotum dark with pale lateral margins; mesonotum pale, with dark lateral triangles and apex; thoracic venter with dark mesosternum, remainder pale; forewings yellow with traces of oblique vittae and largely brown clavus; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Texas, Jeff Davis Co., Davis Mountains, on *Juglans* sp., 2 VIII 1937 (Knull), (OSU).

Distribution: Texas.

Host plants: *Juglans* sp.

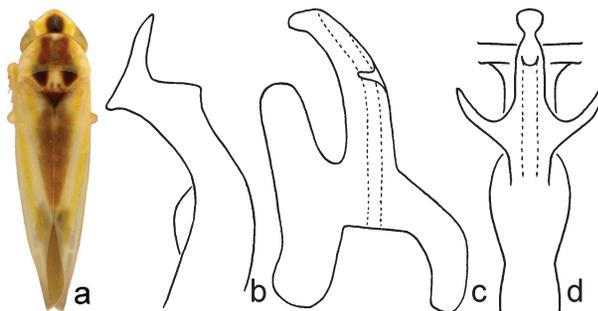
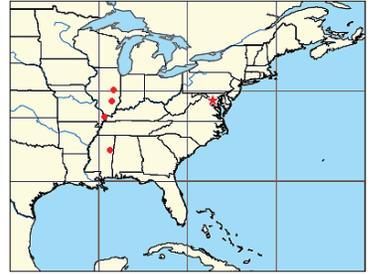


Figure 18. *E. juglandis* (Knull & Auten).

19. *Erythridula divisa* (McAtee, 1924) (Fig. 19)

Erythronaura abolla var. *divisa* McAtee, 1924c:37
Erythronaura divisa Beamer, 1930b:419
Erythronaura (Erythridula) divisa Young, 1952b:83
Erythronaura juglandacea Ross & DeLong,
 1953a:78, **syn.n.**
Erythronaura (Erythridula) loisae Hepner,
 1978a:138, **syn.n.**
Erythridula divisa Dietrich & Dmitriev, 2006a:128



Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes arising near midlength of shaft, evenly divergent or absent; distal processes short, toothlike, apical. Dorsum bright yellow with dark brown or black stripe along entire dorsum; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Maryland, Montgomery Co., Glen Echo, 16 VII 1922 (Malloch), (USNM).

Distribution: Central and northeastern USA.

Host plants: *Juglans nigra*.

Notes: The holotype of *E. loisae* Hepner has the genitalia of *E. divisa* McAtee, but the color pattern is more similar to that of *E. lemnisca* McAtee; other specimens in the MSU collection identified by Hepner as *E. loisae* are different species. Therefore, the holotype of *E. loisae* Hepner is here interpreted as a specimen of *E. divisa* with unusual coloration.

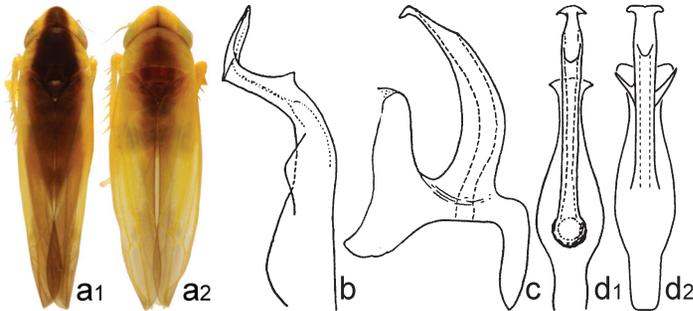


Figure 19. *E. divisa* (McAtee). a1 – usual coloration; a2 – holotype; b–d1 from Ross & DeLong, 1953a.

20. *Erythridula lloydi* (Hepner, 1977) (Fig. 20)

Erythronaura (Erythridula) lloydi Hepner, 1977a:253
Erythridula lloydi Dietrich & Dmitriev, 2006a:129



Description: Length 2.9–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal

apex truncate in ventral view; ventral processes arising near midlength of shaft, slender, evenly divergent; distal processes short, toothlike, apical. Coloration usual for genus: anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Neotype ♂, USA, Mississippi, Noxubee Co., Noxubee National Wildlife Refuge, on *Alnus* sp., 18 VI 1962 (Hepner), (INHS) – here designated.

Distribution: Southeastern USA.

Host plants: Unknown.

Notes: All holotypes of species described in the Hepner (1977a) paper, were apparently lost during shipment to INHS. The neotype is here designated to stabilize the concept of this species.

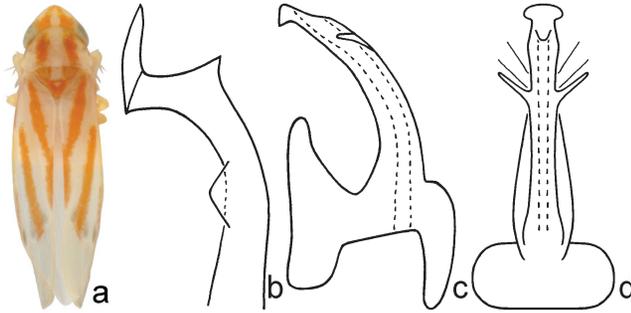


Figure 20. *E. lloydi* (Hepner).

21. *Erythridula morrissi* (Hepner, 1977) (Fig. 21)

Erythroneura (*Erythridula*) *morrissi* Hepner,
1977a:251

Erythridula morrissi Dietrich & Dmitriev, 2006a:129

Description: Length 2.7–2.8 mm. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, long, slender, divergent at base, thence curved dorsocaudad; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Mississippi, Oktibbeha Co., State College, on *Aesculus* sp., 7 IV 1962 (Hepner), (INHS).

Distribution: Known only from the type locality in Mississippi.

Host plants: Unknown; the holotype was collected on *Aesculus* sp.

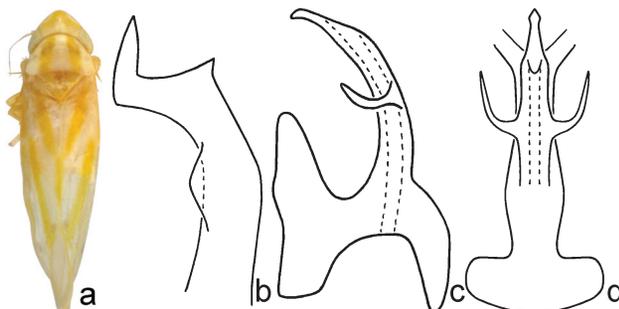


Figure 21. *E. morrissi* (Hepner).

22. *Erythridula cruciformis* (Beamer, 1930) (Fig. 22)

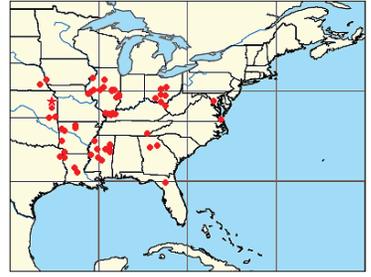
Erythroneura cruciformis Beamer, 1930b:443

Erythroneura (*Erythridula*) *cruciformis* Young, 1952b:82

Erythroneura salmoides Ross & DeLong, 1953a:83, **syn.n.**

Erythroneura (*Erythridula*) *merkli* Hepner, 1977a:253, **syn.n.**

Erythridula cruciformis Dietrich & Dmitriev, 2006a:128



Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near mid-length of shaft, divergent at base, thence curved dorsad; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Carpinus caroliniana*.

Notes: *E. salmoides* Ross and DeLong is based on a specimen with the tip of the aedeagus broken. The holotype of *E. merkli* Hepner is lost, but study of other material from Hepner’s collection supports treating this species as a junior synonym.

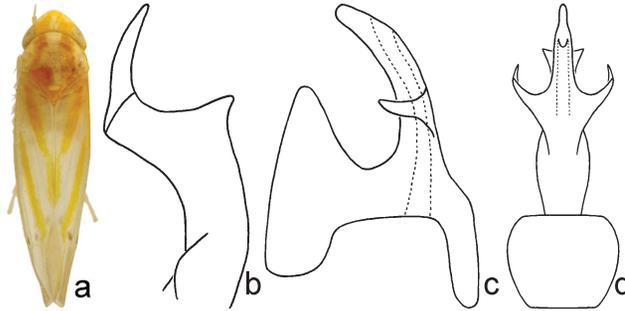


Figure 22. *E. cruciformis* (Beamer).

23. *Erythridula pfrimmeri* (Hepner, 1977) (Fig. 23)

Erythroneura (*Erythridula*) *pfrimmeri* Hepner, 1977b:49

Erythroneura (*Erythridula*) *isei* Hepner, 1977b:54, **syn.n.**

Erythridula pfrimmeri Dietrich & Dmitriev, 2006a:130



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with

long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, evenly divergent, short; distal processes absent. Coloration usual for genus; anteclypeus pale; mesonotum entirely dark; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Mississippi, Oktibbeha Co., State College, 16 VIII 1960 (Hepner), (INHS).

Distribution: Eastern USA.

Host plants: *Quercus nigra*, *Q. pagodifoliae*.

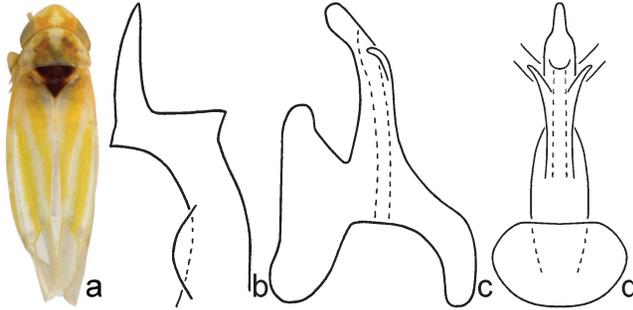


Figure 23. *E. pfrimmeri* (Hepner).

24. *Erythridula autenae* (Johnson, 1935) (Fig. 24)

Erythroneura auteni Johnson, 1935a:73

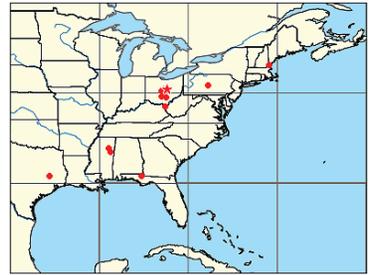
Erythroneura autenae DeLong and Knull, 1946a:78,
emend.

Erythroneura (Erythridula) autenae Young,
1952b:82

Erythroneura (Erythridula) solomoni Hepner,
1977a:251, **syn.n.**

Erythroneura (Erythridula) harei Hepner,
1977a:255, **syn.n.**

Erythridula autenae Dietrich & Dmitriev, 2006a:127



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, with broad base, evenly divergent; distal processes absent. Coloration usual for genus; sometimes color pattern blurred; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Ohio, Knox Co., on *Carpinus* sp., 8 V 1933 (Auten), (OSU).

Distribution: Central and eastern USA.

Host plants: *Carpinus* sp.

Notes: The holotypes of *E. solomoni* Hepner and *E. harei* Hepner are lost; study of paratypes and other material from Hepner's collection supports their treatment as synonyms.

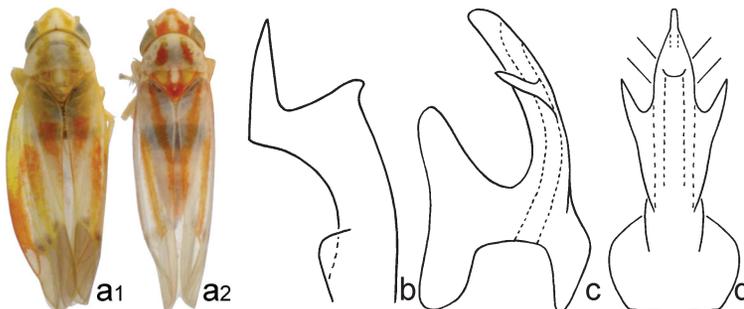


Figure 24. *E. autenae* (Johnson). a1, a2 – color variations.

25. *Erythridula martini* (Hepner, 1976) (Fig. 25)

Erythreoura (*Erythridula*) *martini* Hepner,
1976a:207

Erythreoura (*Erythridula*) *brundusoides* Hepner,
1976d:315, **syn.n.**

Erythridula martini Dietrich & Dmitriev, 2006a:129



Description: Length 2.9–3 mm. Pygofer lobe rounded.

Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, slender, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Mississippi, Oktibbeha Co., State College, on *Ilex decidua*, 3 IV 1961 (Hepner), (INHS).

Distribution: Known only from the type locality in Mississippi.

Host plants: *Ilex decidua*.

Notes: The holotype was collected on 3 IV 1961, not on 4 III 1962 as stated in the original publication.

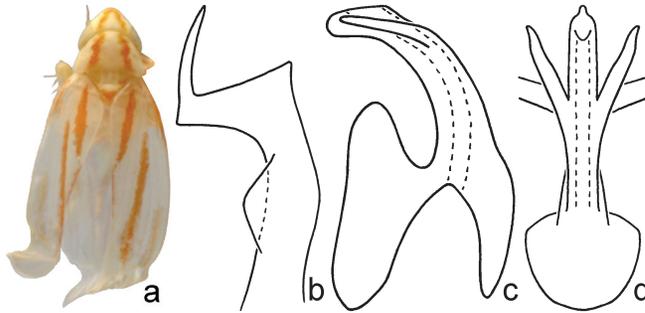


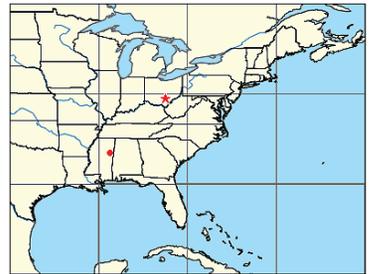
Figure 25. *E. martini* (Hepner). a – holotype.

26. *Erythridula tolerata* (Knull, 1951) (Fig. 26)

Erythreoura tolerata Knull, 1951c:180

Erythreoura (*Erythridula*) *tolerata* Young,
1952b:120

Erythridula tolerata Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex blunt in ventral view; ventral processes arising near midlength of shaft, slender, slightly divergent only at apex; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Hocking Co., 19 X 1945 (Knull), (OSU).

Distribution: Eastern USA.

Host plants: Unknown; one specimen was collected on *Ulmus alata*.

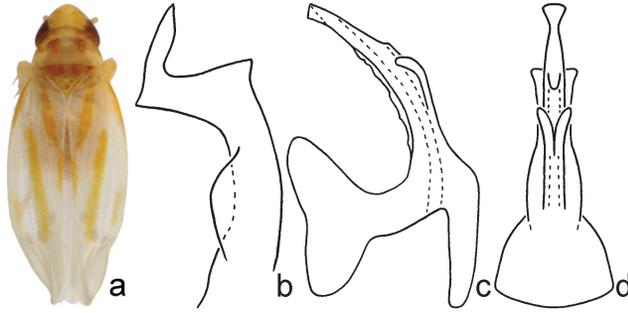


Figure 26. *E. tolerata* (Knull).

27. *Erythridula dunnii* (Hepner, 1976) (Fig. 27)

Erythroneura (*Erythridula*) *dunnii* Hepner, 1976c:295
Erythridula dunnii Dietrich & Dmitriev, 2006a:128

Description: Length 3–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, tooth-like; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, round in crosssection, without dorsal carina or distal lobe, with lateral lobes at base; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, slightly divergent only at apex; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.



Type locality: Holotype ♂, USA, Illinois, Champaign Co., Urbana, 22 IV 1959 (Cunningham), (INHS).

Distribution: Central USA, southern Canada.

Host plants: *Acer saccharum*.

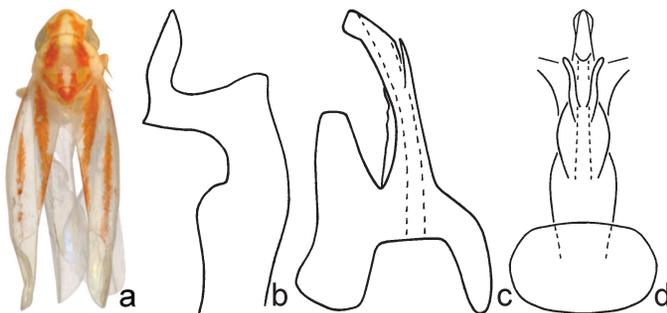


Figure 27. *E. dunnii* (Hepner). a – holotype.

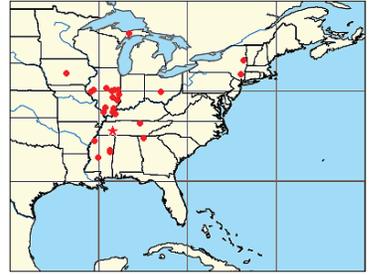
28. *Erythridula parsonsi* (Hepner, 1976) (Fig. 28)

Erythroneura (*Erythridula*) *parsonsi* Hepner, 1976c:295

Erythroneura (*Erythridula*) *ivae* Hepner, 1976c:297 **syn.n.**

Erythroneura (*Erythridula*) *enatoides* Hepner, 1977c:365 **syn.n.**

Erythridula parsonsi Dietrich & Dmitriev, 2006a:130



Description: Length 3–3.3 mm. 2S abdominal apodemes

large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, slender, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Tennessee, Henderson Co., Lexington, on *Acer rubrum*, 3 VII 1963 (Hepner), (INHS).

Distribution: Central and eastern USA.

Host plants: *Acer pensylvanicum*, *A. spicatum*, *A. saccharum*, *A. rubrum*, and other species of *Acer*.

Notes: The holotype of *E. ivae* Hepner is an aberrant specimen with ventral processes arising at the base of the aedeagal shaft.

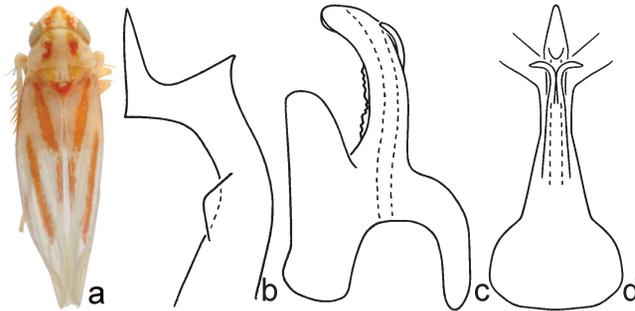


Figure 28. *E. parsonsi* (Hepner). a – holotype.

29. *Erythridula afflicta* (Beamer, 1935) (Fig. 29)

Erythroneura afflicta Beamer, 1935a:101

Erythroneura (*Erythridula*) *afflicta* Young, 1952b:82

Erythridula afflicta Dietrich & Dmitriev, 2006a:127



Description: Length 2.9–3.1 mm. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and broad in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus, unpaired distal process apical, on ventral side of shaft, slender. Coloration usual for genus;

anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Maryland, Montgomery Co., Glen Echo, 22 II 1931 (Oman), (KSEM).

Distribution: The species is known only from the type locality in Maryland.

Host plants: Unknown.

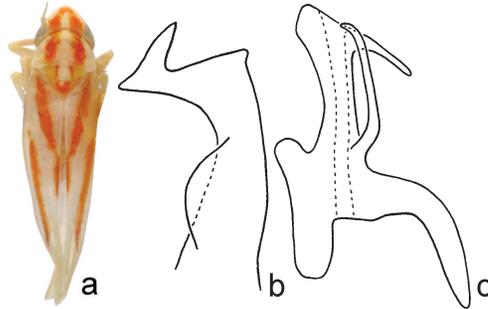


Figure 29. *E. afflicta* (Beamer).

30. *Erythridula noeva* (Gillette, 1898) (Fig. 30)

Typhlocyba obliqua var. *noevus* Gillette, 1898a:757

Typhlocyba obliqua var. *naevus* Gillette, 1898c:31, missp.

Typhlocyba obliqua var. *novus* Wirtner, 1904a:227, missp.

Erythroneura obliqua var. *noevus* Van Duzee, 1916a:77

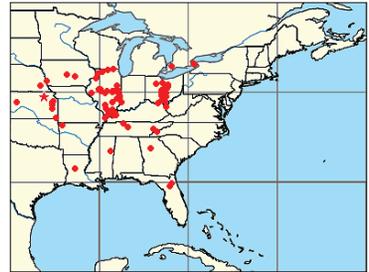
Erythroneura obliqua var. *parma* McAtee, 1920a:280, **syn.n.**

Erythroneura noevus Lawson, 1929a:41

Erythroneura noeva Johnson, 1935a:52, emend.

Erythroneura (Erythridula) noeva Young, 1952b:83

Erythridula noeva Dietrich & Dmitriev, 2006a:130



Description: Length 2.9–3.3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe angulate. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, smooth or denticulate along ventral margin, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, well separated from shaft, shorter than shaft, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; mesonotum usually entirely dark brown; thoracic venter with dark mesosternum, remainder pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Pottawatomie Co., Onaga, (Crevecoeur), (USNM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Juglans nigra*.

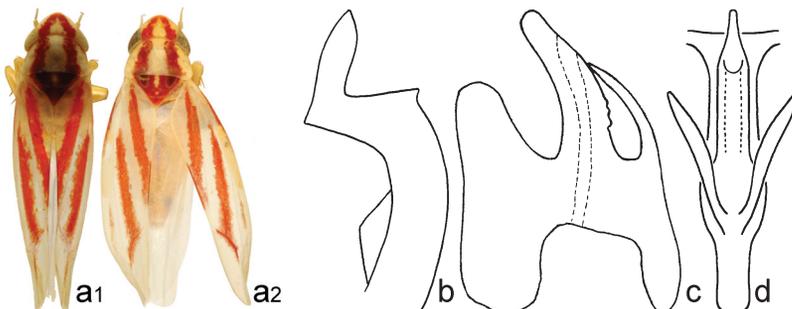


Figure 30. *E. noeva* (Gillette). a2 – color var. *parma* McAtee.

31. *Erythridula nondescripta* (Johnson, 1935) (Fig. 31)

Erythronaura nondescripta Johnson, 1935a:92
Erythronaura (Erythridula) nondescripta Young,
 1952b:83
Erythronaura (Erythridula) lindleyi Hepner,
 1976a:207, **syn.n.**
Erythridula nondescripta Dietrich & Dmitriev,
 2006a:130



Description: Length 2.7–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Athens Co., Athens, 11 IX 1920 (Osborn), (OSU).

Description: Central and eastern USA.

Host plants: Unknown; the holotype of *E. lindleyi* Hepner was collected on *Carpinus* sp.

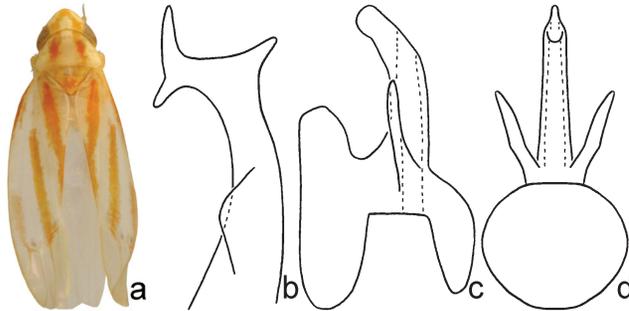
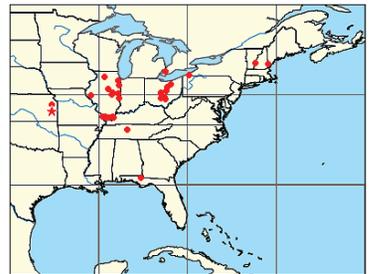


Figure 31. *E. nondescripta* (Johnson).

32. *Erythridula infinita* (Beamer, 1930) (Fig. 32)

Erythronaura infinita Beamer, 1930b:446
Erythronaura latapex Beamer, 1930b:447, **syn.n.**
Erythronaura (Erythridula) paigeae Hepner,
 1976a:208, **syn.n.**
Erythridula infinita Dietrich & Dmitriev, 2006a:129



Description: Length 3–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, denticulate along ventral margin, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Anderson Co., 9 XI 1927 (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Quercus rubra* var. *ambigua*, *Q. alba*.

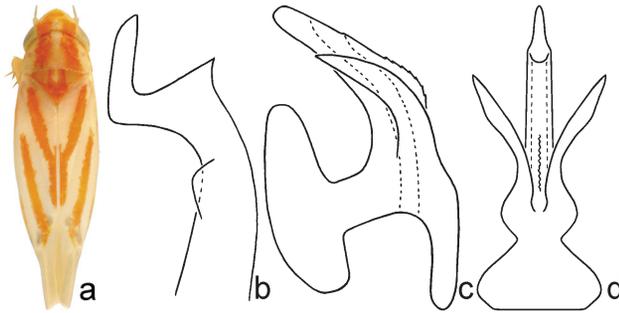


Figure 32. *E. infinita* (Beamer).

33. *Erythridula spearca* (Johnson & Auten, 1936) (Fig. 33)

Erythroneura nitida Auten & Johnson, 1936a:65
(prim.hom.: *Erythroneura nitida* Beamer, 1935a)

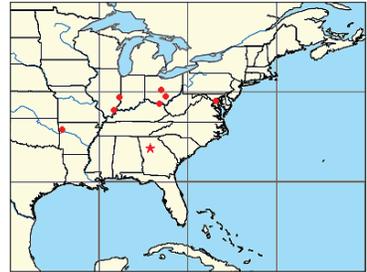
Erythroneura spearca Johnson & Auten, 1936a:818, n.nov.

Erythroneura (Erythridula) spearca Young, 1952b:84

Erythroneura noevoides Ross & DeLong, 1953a:83, **syn.n.**

*Erythroneura (Erythridula) diana*e Hepner, 1976a:205, **syn.n.**

Erythridula spearca Dietrich & Dmitriev, 2006a:131



Description: Length 2.9–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, denticulate along ventral margin, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Georgia, DeKalb Co., Decatur, McCurdy's Pond, 25 IV 1934 (Auten), (OSU).

Distribution: Central and eastern USA.

Host plants: Unknown; the holotype of *E. diana*e Hepner was collected on *Cercis canadensis*.

Notes: The holotype was collected on 25 IV 1934, not on 16 IV 1934 as stated in the original publication.

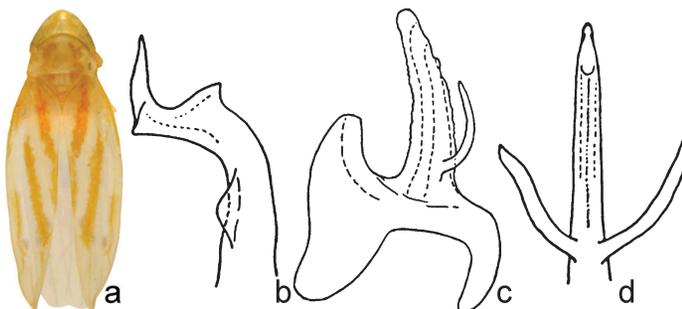
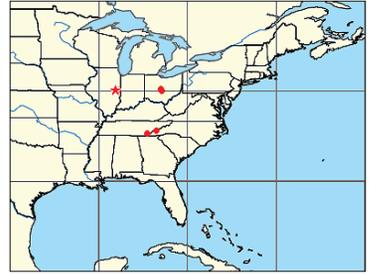


Figure 33. *E. spearca* (Johnson & Auten). a – holotype; b–d – from Ross and DeLong, 1953a.

34. *Erythridula aesculella* (Ross & DeLong, 1953) (Fig. 34, Plate 1g)

Erythronaura aesculella Ross & DeLong, 1953a:82
Erythridula aesculella Dietrich & Dmitriev, 2006a:127



Description: Length 3.1–3.4 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft; shaft straight and slender in lateral view, round in crosssection; with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, well separated from shaft, shorter than shaft, evenly divergent; distal processes absent. Dorsum yellow or white with red color pattern; vertex pale; anteclypeus pale, concolorous with rest of face; pronotum and mesonotum almost entirely red; thoracic venter pale; forewings without oblique vittae, with crossband, not reaching lateral margins and bases of wings; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Champaign Co., Urbana, Brownfield Woods, on *Aesculus glabra*, 9 VIII 1948 (Becker & Ross), (INHS).

Distribution: Central and southeastern USA.

Host plants: *Aesculus glabra*.

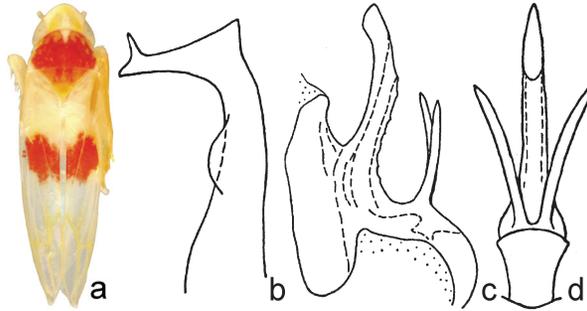
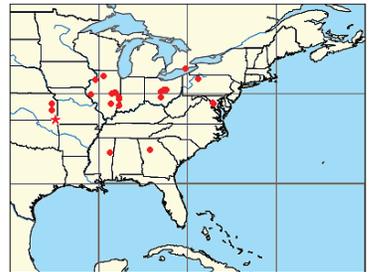


Figure 34. *E. aesculella* (Ross & DeLong). a – holotype; b–d – from Ross and DeLong, 1953a.

35. *Erythridula perita* (Beamer, 1935) (Fig. 35)

Erythronaura perita Beamer, 1935a:99
Erythronaura extrema Auten & Johnson, 1936a:64
Erythronaura (Erythridula) perita Young, 1952b:83
Erythridula perita Dietrich & Dmitriev, 2006a:130



Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points more than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, compressed; without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes placed basally, well separated from shaft, shorter than shaft, evenly divergent; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Cherokee Co., 1928, (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Prunus serotina*, *P. virginiana*.

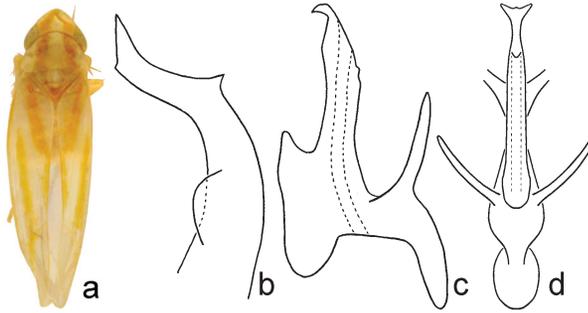


Figure 35. *E. perita* (Beamer).

36. *Erythrindula haspata* (Ross & DeLong, 1953) (Fig. 36)

Erythroneura haspata Ross & DeLong, 1953a:85

Erythrindula haspata Dietrich & Dmitriev, 2006a:128

Description: Length 2.7 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus parallelsided, connection to pygofer membranous; preatrium shorter than shaft; shaft straight and slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex angulate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus, with ventral tooth; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.



Type locality: Holotype ♂, USA, Illinois, Cook Co., Thornton, on *Corylus americana*, 7 IX 1949 (Ross & Stannard), (INHS).

Distribution: Central USA.

Host plants: Unknown; the holotype was collected on *Corylus americana*.

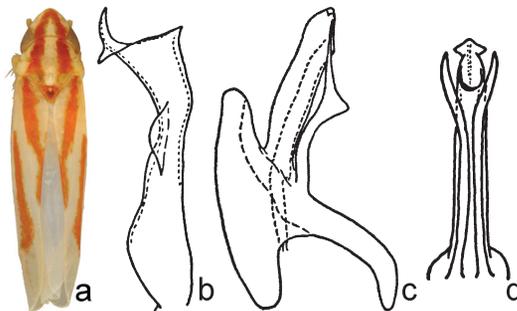


Figure 36. *E. haspata* (Ross & DeLong). b-d – from Ross and DeLong, 1953a.

37. *Erythridula wysongi* (Ross & DeLong, 1953) (Fig. 37)
Erythroneura wysongi Ross & DeLong, 1953a:84
Erythridula wysongi Dietrich & Dmitriev, 2006a:131



Description: Length 2.7–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points more than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus, with lateral tooth; distal processes absent. Dorsum yellowish with reddish and brownish color pattern; vertex with oblique lateral vittae or with large basal dark area, extended onto pronotum, midline pale or dark; anteclypeus brown; pronotum dark with pale lateral margins; mesonotum dark; thoracic venter entirely dark; forewings with oblique vittae, often fussed, without crossbands; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Cook Co., Bemis Woods, on *Crataegus mollis*, 2 VII 1949 (Ross & Stannard), (INHS).

Distribution: Northern Central USA.

Host plants: Unknown; the holotype was collected on *Crataegus mollis*.

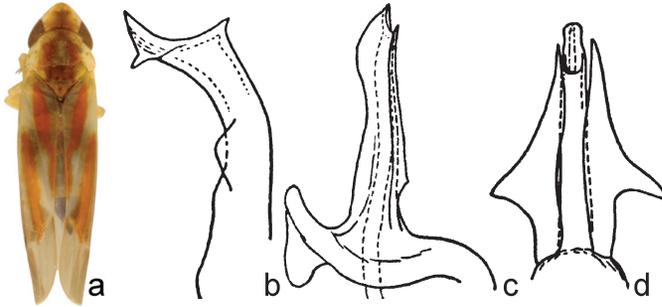


Figure 37. *E. wysongi* (Ross & DeLong). b–d – from Ross and DeLong, 1953a.

38. *Erythridula torva* (Beamer, 1935) (Fig. 38)
Erythroneura torva Beamer, 1935a:98
Erythroneura (Erythridula) torva Young, 1952b:84
Erythridula torva Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3 mm. Pygofer lobe rounded. Second point of style apex longer than third; third point very short; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; mesonotum entirely pale; oblique vittae on clavus slightly brighter than those on corium; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Connecticut, New Haven Co., New Haven, 20 VIII 1934

(Beamer), (KSEM).

Distribution: Northeastern USA.

Host plants: Unknown.

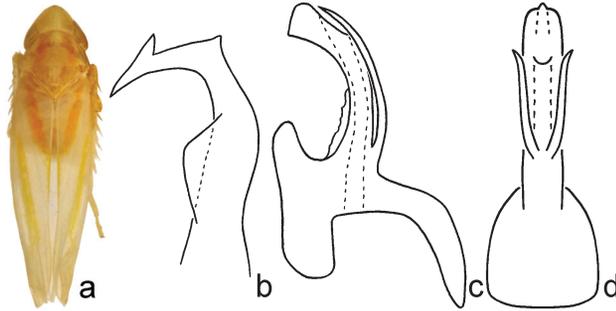


Figure 38. *E. torva* (Beamer).

39. *Erythridula rubens* (Beamer, 1930) (Fig. 39)

Erythroneura rubens Beamer, 1930b:439

Erythroneura ponderosa Auten & Johnson, 1936a:62,

syn.n.

Erythroneura (Erythridula) rubens Young, 1952b:84

Erythroneura (Erythridula) enfieldensis Hepner,

1976b:126, **syn.n.**

Erythridula rubens Dietrich & Dmitriev, 2006a:130



Description: Length 2.7–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point short; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in cross-section, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus brown; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Gallatin Co., 31 III 1929 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Crataegus mollis*.

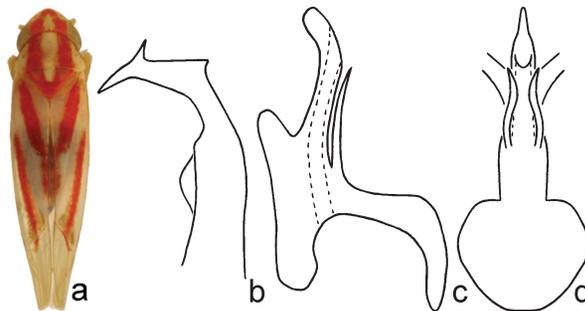


Figure 39. *E. rubens* (Beamer).

40. *Erythridula praecisa* (Knull, 1946) (Fig. 40)

Erythreura praecisa Knull, 1946a:46

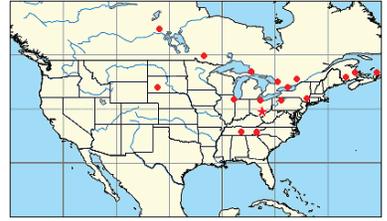
Erythreura (*Erythridula*) *praecisa* Young, 1952b:83

Erythreura betulaspera Richards & Varty, 1964a:515, **syn.n.**

Erythreura (*Erythridula*) *hormchunae* Hepner, 1976b:120, **syn.n.**

Erythreura (*Erythridula*) *kingstoniensis* Hepner, 1976b:124, **syn.n.**

Erythridula praecisa Dietrich & Dmitriev, 2006a:130



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point short; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus, depressed, with small irregularly placed knobs; distal processes short, toothlike, apical. Dorsum yellowish with reddish and brownish color pattern; vertex with oblique lateral vittae, midline pale; anteclypeus brown; pronotum pale with two longitudinal stripes; mesonotum from entirely pale to entirely dark; thoracic venter entirely dark; forewings with oblique vittae, often fused; abdomen dark dorsally.

Type locality: Holotype ♀, USA, Ohio, Hocking Co., 1 VI 1938 (Knull), (OSU).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Betula lutea*, *B. papyrifera*, *B. populifolia*, *B. alleghaniensis*.

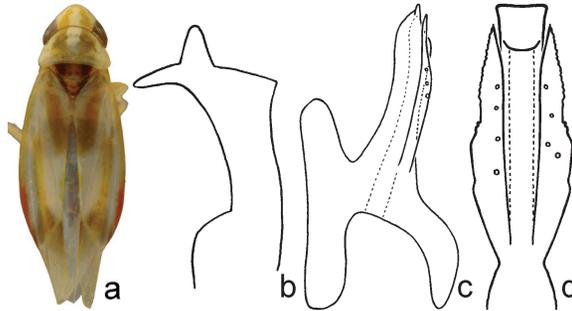


Figure 40. *E. praecisa* (Knull).

41. *Erythridula aspera* (Beamer & Griffith, 1935) (Fig. 41)

Erythreura aspera Beamer & Griffith, 1935a:18

Erythreura (*Erythridula*) *aspera* Young, 1952b:82

Erythreura (*Erythridula*) *neeli* Hepner, 1976b:121, **syn.n.**

Erythreura (*Erythridula*) *kanensis* Hepner, 1976d:314, **syn.n.**

Erythridula aspera Dietrich & Dmitriev, 2006a:127



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point short; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view,

compressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Idaho, Gooding Co., Bliss, 7 VII 1931 (Beamer), (KSEM).

Distribution: Northwestern, central, and eastern USA, southern Canada.

Host plants: *Prunus virginiana*, *P. avium*.

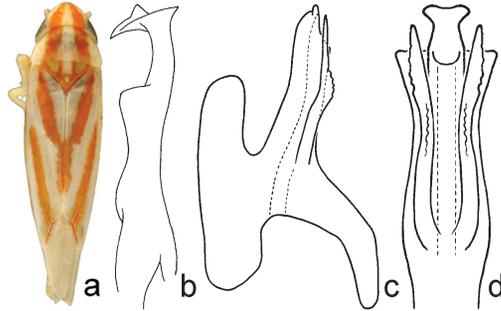


Figure 41. *E. aspera* (Beamer & Griffith). b – from Richards & Varty, 1964a.

42. *Erythridula dowelli* (Beamer, 1932) (Fig. 42)

Erythroneura dowelli Beamer, 1932b:62

Erythroneura (Erythridula) dowelli Young, 1952b:83

Erythridula dowelli Dietrich & Dmitriev, 2006a:128

Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad,

slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., on *Malus* sp., 3 X 1931 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Malus pumila*.

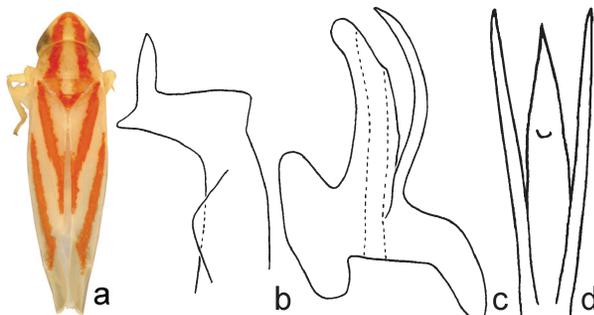
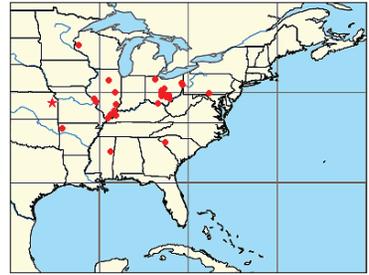


Figure 42. *E. dowelli* (Beamer). d – from Hepner, unpublished.

43. *Erythridula furcillata* (Beamer, 1930) (Fig. 43)

- Erythreurea furcillata* Beamer, 1930b:452
- Erythreurea furcilliata* Beamer, 1930b:421, missp.
- Erythreurea furcellata* DeLong & Caldwell, 1937c:73, missp.
- Erythreurea (Erythridula) furcillata* Young, 1952b:83
- Erythreurea (Erythridula) nebekeri* Hepner, 1976b:120, **syn.n.**
- Erythreurea (Erythridula) nebeberi* Hepner, 1976b:120, missp.
- Erythreurea (Erythridula) cooni* Hepner, 1976b:121, **syn.n.**
- Erythridula furcillata* Dietrich & Dmitriev, 2006a:128



Description: Length 2.6–2.8 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with dorsal carina; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Texas, Bowie Co., 16 VIII 1928 (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Crataegus viridis*.

Notes: The holotype was collected on 16 VIII 1928, not on 16 VII 1928 as stated in the original publication.

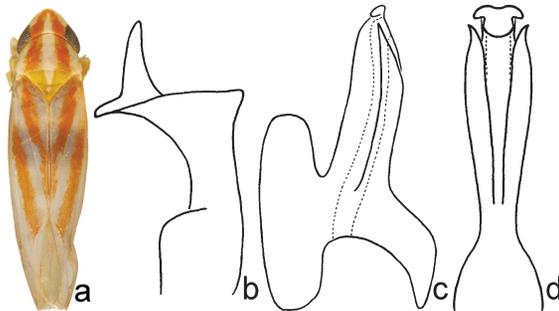


Figure 43. *E. furcillata* (Beamer).

44. *Erythridula plena* (Beamer, 1930) (Fig. 44)

- Erythreurea plena* Beamer, 1930b:442
- Erythreurea pleua* McConnell, 1931a:560, missp.
- Erythreurea (Erythridula) plena* Young, 1952b:83
- Erythridula plena* Dietrich & Dmitriev, 2006a:130



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with long compressed dorsal distal lobe, and small tooth at middle dorsally; aedeagal apex rounded in ventral view; ven-

tral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Lawrence Co., 31 III 1929 (Beamer), (KSEM).

Distribution: Northwestern, central, and eastern USA, southern Canada.

Host plants: *Prunus persica*, *P. avium*, *P. emarginata*, and other species of *Prunus*.

Notes: The holotype was collected in Illinois, Lawrence Co., 31 III 1929, not in Kansas, Cherokee Co., 21 VIII 1927 as stated in the original publication.

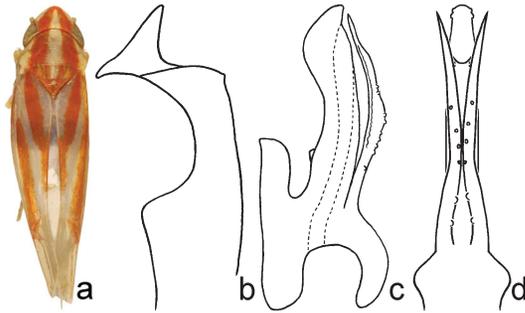


Figure 44. *E. plena* (Beamer).

45. *Erythridula crossi* (Hepner, 1976) (Fig. 45)

Erythroneura (*Erythridula*) *crossi* Hepner,
1976a:210

Erythroneura (*Erythridula*) *albanyensis* Hepner,
1976b:124, **syn.n.**

Erythridula crossi Dietrich & Dmitriev, 2006a:128



Description: Length 2.4–2.5 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex angulate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, divergent only at apex; distal processes short, toothlike, apical. Coloration usual for genus, oblique pattern pale; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Georgia, Dougherty Co., Albany, on *Crataegus* sp., 15 VI 1963 (Hepner), (INHS).

Distribution: Known from only the type locality in Georgia.

Host plants: *Crataegus* sp.

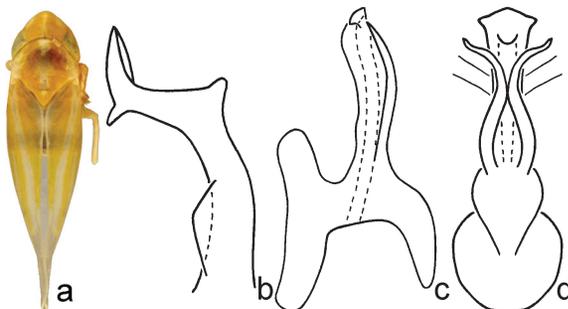


Figure 45. *E. crossi* (Hepner).

46. *Erythridula funesta* (Beamer, 1930) (Fig. 46)

Erythroneura funesta Beamer, 1930b:441

Erythroneura pulchra Beamer, 1930b:422 (prim. hom.: *Erythroneura pulchra* Naudé, 1926a), **syn.n.**

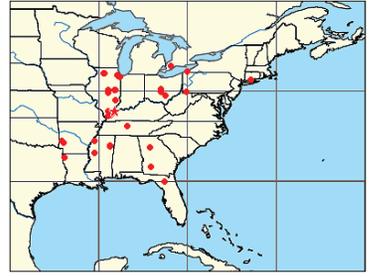
Erythroneura accurata Beamer, 1934b:18, n.nov., **syn.n.**

Erythroneura alata Knull, 1946a:45, **syn.n.**

Erythroneura (Erythridula) funesta Young, 1952b:83

Erythroneura (Erythridula) andrewsi Hepner, 1976b:121, **syn.n.**

Erythridula funesta Dietrich & Dmitriev, 2006a:128



Description: Length 2.6–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with small dorsal distal lobe; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus, expanded and denticulate distally; distal processes short, toothlike, apical. Dorsum yellow or white with reddish and brownish color pattern; vertex with oblique lateral vittae or with large basal dark area, often extended onto pronotum; vertex midline pale or dark; anteclypeus brown; pronotum dark with pale lateral margins or pale with two longitudinal stripes; mesonotum pale or dark; thoracic venter with dark mesosternum, remainder pale; forewings with oblique vittae; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Gallatin Co., 31 III 1929 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Crataegus* spp.

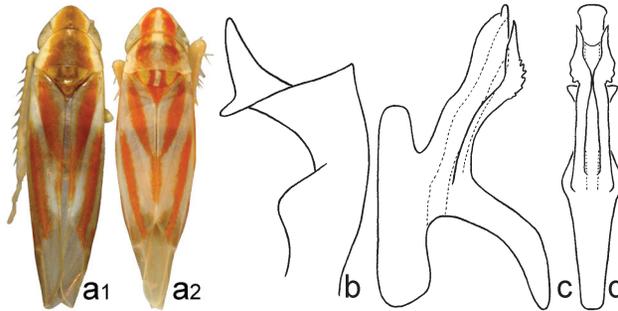


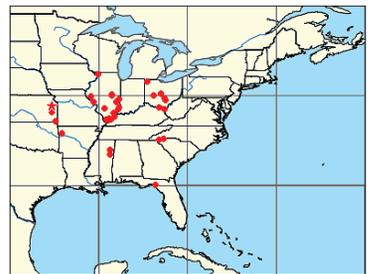
Figure 46. *E. funesta* (Beamer). a1 – holotype of *E. alata* Knull.

47. *Erythridula rubrataeniensis* (Beamer, 1930) (Fig. 47)

Erythroneura rubrataeniensis Beamer, 1930b:440

Erythroneura (Erythridula) rubrataeniensis Young, 1952b:84

Erythridula rubrataeniensis Dietrich & Dmitriev, 2006a:130



Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other

two points; angle between basal and third points less than 90° . Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with dorsal carina; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, divergent only at apex; distal processes short, toothlike, apical, or absent. Coloration usual for genus; anteclypeus pale; thoracic venter entirely pale or with dark mesosternum; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Ulmus alata*.

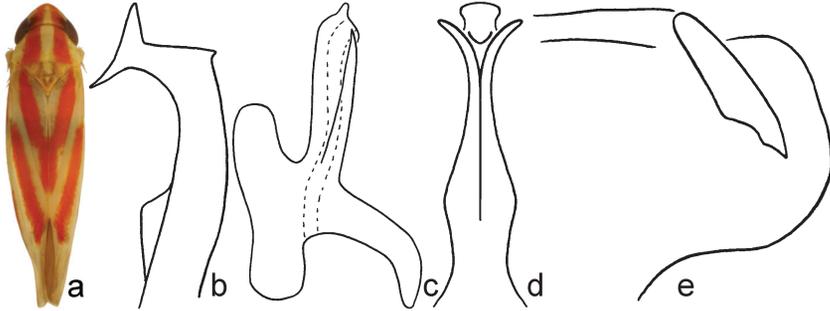


Figure 47. *E. rubrataeniensis* (Beamer).

48. *Erythridula repleta* (Johnson, 1935) (Fig. 48)

Erythoneura repleta Johnson, 1935a:78

Erythoneura (Erythridula) repleta Young, 1952b:83

Erythridula repleta Dietrich & Dmitriev, 2006a:130

Description: Length 2.7–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90° . Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus, with sparse small knobs; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter entirely dark; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Ohio, Hancock Co., 30 IX 1934 (Johnson), (OSU).

Distribution: Central and eastern USA.

Host plants: *Crataegus viridis*.

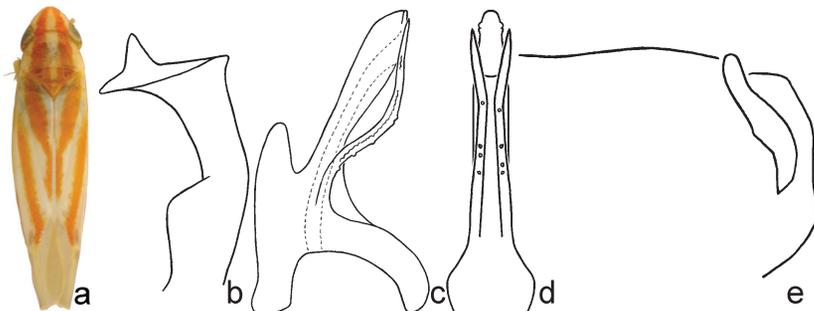


Figure 48. *E. repleta* (Johnson). a – holotype.

49. *Erythridula minima* (Johnson, 1935) (Fig. 49)

Erythronaura minima Johnson, 1935a:92
Erythronaura (Erythridula) minima Young, 1952b:83
Erythridula minima Dietrich & Dmitriev, 2006a:129



Description: Length 2.4–2.6 mm. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Champaign Co., Cedar Swamp, 29 VII 1934 (Caldwell), (OSU).

Distribution: Ohio.

Host plants: Unknown.

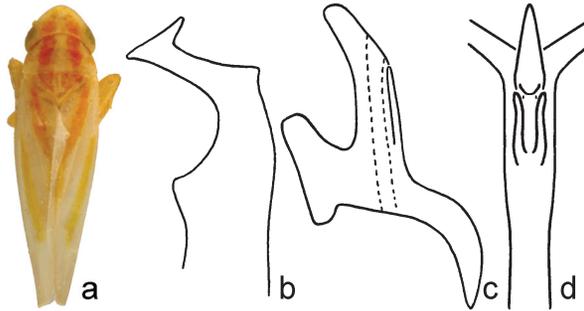
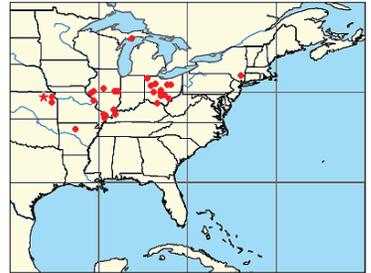


Figure 49. *E. minima* (Johnson).

50. *Erythridula rubroscuta* (Gillette, 1898) (Fig. 50)

Typhlocyba rubroscuta Gillette, 1898a:755
Erythronaura rubroscuta Van Duzee, 1916a:77
Erythronaura (Erythridula) rubroscuta Young, 1952b:84
Erythridula rubroscuta Dietrich & Dmitriev, 2006a:130



Description: Length 3.1–3.4 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point short; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Dorsum yellow with red color pattern; vertex usually unicolorous, pale; anteclypeus pale, concolorous with rest of face; pronotum and mesonotum almost entirely red; thoracic venter pale; forewings without oblique vittae, with red crossband, not reaching lateral margins and bases of wings; abdomen pale dorsally.

Type locality: Holotype ♀, USA, Kansas, Pottawatomie Co., Onaga, among leaves in timber,

Febr., (Crevecoeur), (USNM).

Distribution: Central and northeastern USA.

Host plants: *Aesculus glabra*.

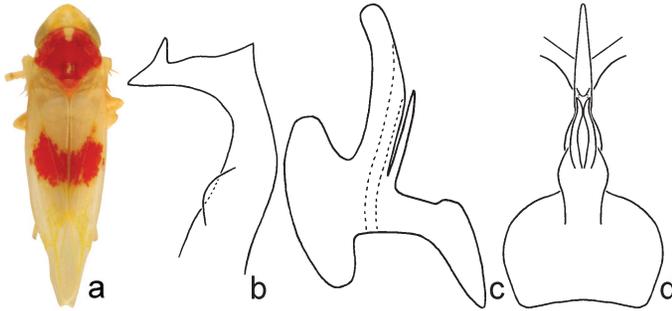


Figure 50. *E. rubroscuta* (Gillette).

51. *Erythridula nitida* (Beamer, 1935) (Fig. 51)

Erythroneura nitida Beamer, 1935a:103

Erythroneura (Erythridula) nitida Young, 1952b:83

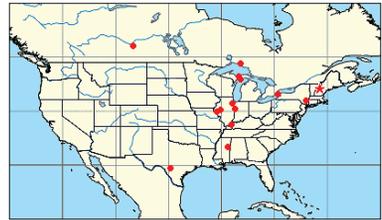
Erythroneura (Erythridula) camirei Hepner,
1976b:119, **syn.n.**

Erythroneura (Erythridula) schusteri Hepner,
1976b:120, **syn.n.**

Erythroneura (Erythridula) boniorum Hepner,
1976b:125, **syn.n.**

Erythroneura (Erythridula) cliffordi Hepner, 1976c:293, **syn.n.**

Erythridula nitida Dietrich & Dmitriev, 2006a:130



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with long compressed dorsal distal lobe, sometimes with ventral crest; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, New Hampshire, Coos Co., Bretton Woods, 31 VIII 1934 (Beamer), (KSEM).

Distribution: Central and eastern USA, southern Canada.

Host plants: Unknown; collected on *Alnus incana*, *Crataegus mollis*.

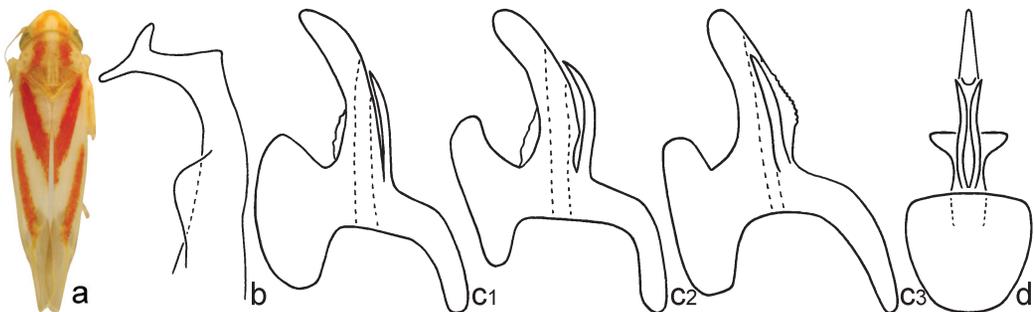


Figure 51. *E. nitida* (Beamer). c1–c3—variation of shape of aedeagus; c3—holotype *E. schusteri* Hepner.

52. *Erythridula acicularis* (Beamer, 1932) (Fig. 52)

Erythronaura acicularis Beamer, 1932i:126

Erythronaura (*Erythridula*) *acicularis* Young,
1952b:82

Erythronaura (*Erythridula*) *pura* Knull, 1954d:38,
syn.n.

Erythridula acicularis Dietrich & Dmitriev,
2006a:127



Description: Length 2.7–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♀, USA, Oregon, Baker Co., Dixie, on *Rosa* sp., 8 VII 1931 (Beamer), (KSEM).

Distribution: Northern USA, southern Canada.

Host plants: *Rosa* sp., *Spiraea alba*.

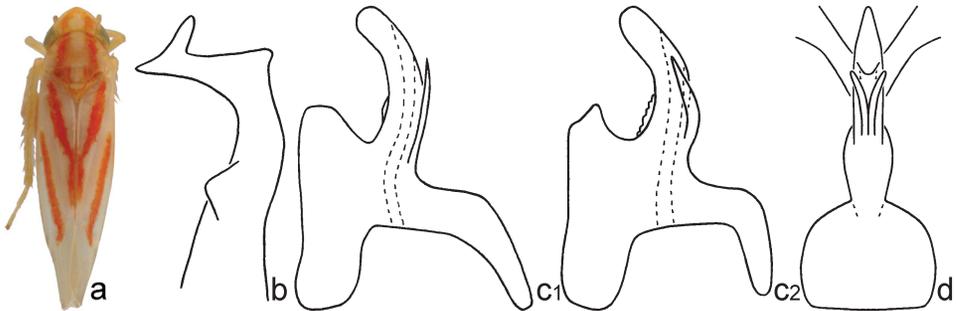


Figure 52. *E. acicularis* (Beamer). c1, c2 – variation of shape of aedeagus.

53. *Erythridula penobliqua* (Beamer, 1930) (Fig. 53)

Erythronaura penobliqua Beamer, 1930b:453

Erythronaura (*Erythridula*) *penobliqua* Young,
1952b:83

Erythridula penobliqua Dietrich & Dmitriev,
2006a:130



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, round in crosssection, without dorsal carina or distal lobe, with lateral lobes at base; aedeagal apex truncate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Oman), (KSEM).

Distribution: Central USA.

Host plants: Unknown.

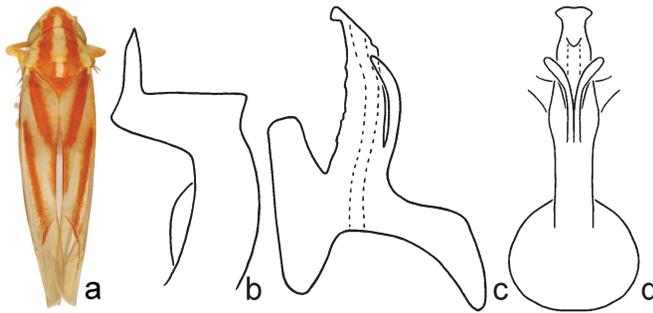


Figure 53. *E. penobliqua* (Beamer).

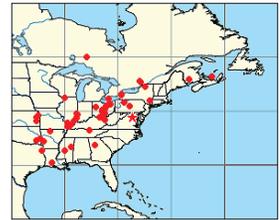
54. *Erythridula stolata* (McAtee, 1920) (Fig. 54)

Erythroneura obliqua var. *stolata* McAtee, 1920a:279

Erythroneura stolata Beamer, 1930b:420

Erythroneura (Erythridula) stolata Young, 1952b:84

Erythridula stolata Dietrich & Dmitriev, 2006a:131



Description: Length 2.7–2.9 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; aedeagal shaft curved dorsad, slender in lateral view, depressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, short, slightly divergent, appressed to sides of aedeagal shaft, sometimes processes fused to shaft; distal processes absent. Dorsum bright yellow with brown strip along entire dorsum; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♀, USA, Virginia, Alexandria (city) Co., Maywood, 20 II 1916 (McAtee), (USNM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Fagus grandifolia*.

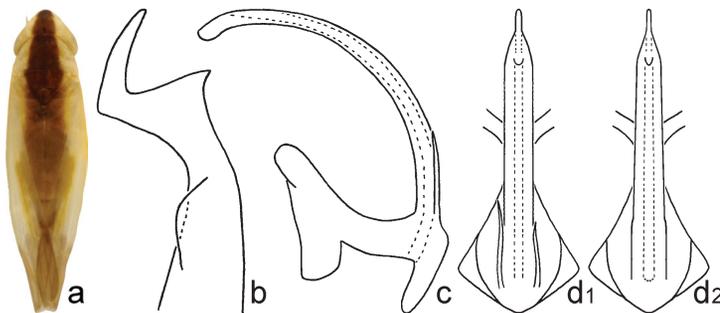


Figure 54. *E. stolata* (McAtee). d1, d2 – variation of shape of ventral processes of aedeagus.

55. *Erythridula ohioensis* (Knull, 1945) (Fig. 55)

Erythroneura ohioensis Knull, 1945b:108
Erythroneura (Erythridula) ohioensis Young,
 1952b:83
Erythridula ohioensis Dietrich & Dmitriev,
 2006a:130



Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and broad in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, very short, parallel to each other on ventral side of aedeagus; distal processes absent. Dorsum yellow with red or brownish red color pattern; vertex with large basal dark area, often extended onto pronotum, vertex midline dark; anteclypeus pale, concolorous with rest of face; pronotum dark with pale lateral margins; mesonotum entirely dark; thoracic venter pale; forewings with oblique vittae; clavus largely dark; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Ohio, Delaware Co., 30 IV 1944 (Knull), (OSU).

Distribution: Central USA.

Host plants: Unknown.

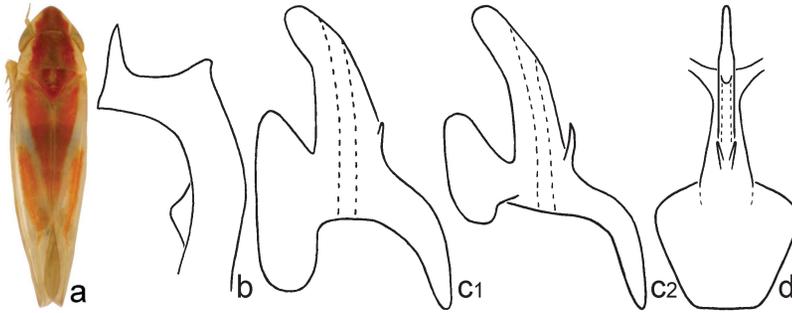


Figure 55. *E. ohioensis* (Knull). c1, c2 – variation of shape of ventral processes of aedeagus.

56. *Erythridula fumida* (Gillette, 1898) (Fig. 56, Plate 1e)

Typhlocyba obliqua var. *fumida* Gillette, 1898a:758
Erythroneura obliquua var. *fumida* Van Duzee,
 1914a:57, missp.
Erythroneura fumida Lawson, 1920a:249
Erythroneura (Erythridula) fumida Young, 1952b:83
Erythridula fumida Dietrich & Dmitriev, 2006a:128



Description: Length 2.7–2.9 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, denticulate distally, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes short, toothlike, apical, or absent. Dorsum dull yellow with red or brownish

red color pattern; vertex with oblique lateral vittae, midline pale; anteclypeus pale, concolorous with rest of face; pronotum mostly dark; thoracic venter entirely dark; forewings with oblique vittae, usually fused together; abdomen dark dorsally.

Type locality: Holotype ♀, USA, Kansas, Pottawatomie Co., Onaga, Febr., (Crevecoeur), (USNM).

Distribution: Central and northeastern USA, southeastern Canada.

Host plants: *Tilia americana*.

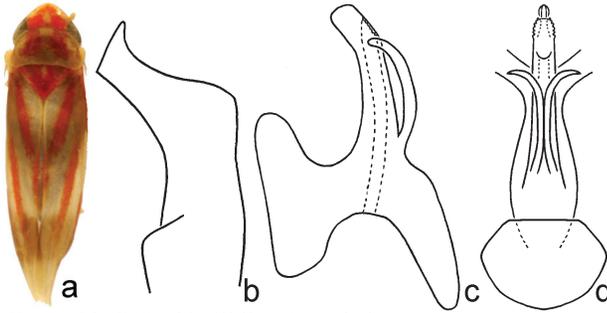


Figure 56. *E. fumida* (Gillette). a – holotype.

57. *Erythridula jonesi* (Hepner, 1976) (Fig. 57)

Erythroneura (Erythridula) jonesi Hepner,
1976c:294

Erythridula jonesi Dietrich & Dmitriev, 2006a:129

Description: Length 2.8 mm. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Florida, Marion Co., Juniper Springs, on *Vaccinium* sp., 9 VI 1963 (Hepner), (INHS).

Distribution: Known only from the type locality in Florida.

Host plants: *Vaccinium* sp.

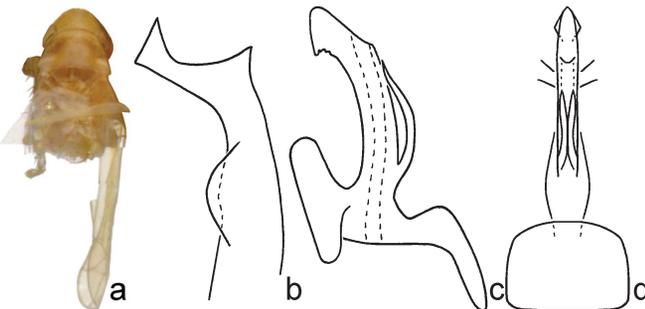
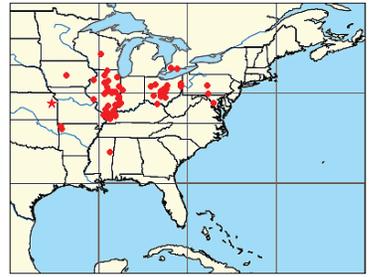


Figure 57. *E. jonesi* (Hepner). a – holotype.

58. *Erythridula magnacalx* (Beamer, 1930) (Fig. 58)
Erythroneura magnacalx Beamer, 1930b:451
Erythroneura magnacalx Ackerman & Isely,
 1931a:11, missp.
Erythroneura (Erythridula) magnacalx Young,
 1952b:83
Erythridula magnacalx Dietrich & Dmitriev,
 2006a:129



Description: Length 2.6–2.8 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft. Aedeagal shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, well separated from shaft, shorter than shaft, divergent at base, than parallel; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).

Distribution: Central and northeastern USA, southeastern Canada.

Host plants: *Malus* sp.

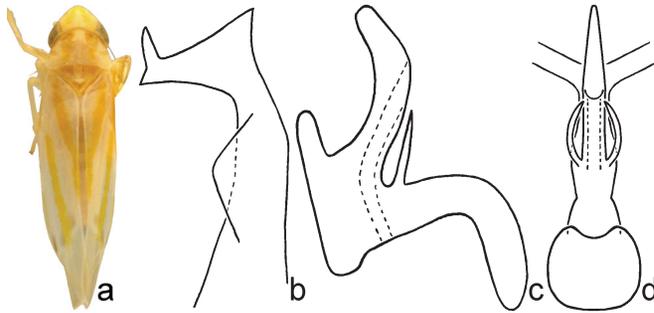
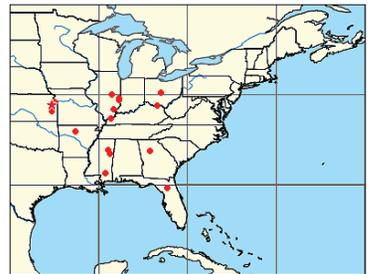


Figure 58. *E. magnacalx* (Beamer).

59. *Erythridula penenoeva* (Beamer, 1930) (Fig. 59)
Erythroneura penenoeva Beamer, 1930b:438
Erythroneura (Erythridula) penenoeva Young,
 1952b:83, missp.
Erythroneura (Erythridula) patricki Hepner,
 1976a:208, **syn.n.**
Erythroneura (Erythridula) tomentosae Hepner,
 1976c:297, **syn.n.**
Erythroneura (Erythridula) wandae Hepner,
 1976c:299, **syn.n.**
Erythroneura (Erythridula) edgari Hepner,
 1976c:300, **syn.n.**
Erythridula penenoeva Dietrich & Dmitriev, 2006a:130



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter

than shaft; shaft straight and slender in lateral view, round in cross-section, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; mesonotum usually dark brown; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1 V 1926 (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Carya tomentosa*, *C. illinoensis*.

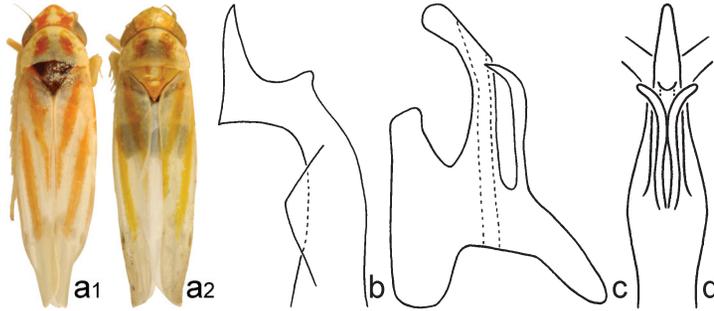


Figure 59. *E. penenoeva* (Beamer). a2 – color var. *tomentosae*.

60. *Erythridula lucileae* (Hepner, 1976) (Fig. 60)

Erythroneura (*Erythridula*) *lucileae* Hepner,
1976c:299

Erythridula lucileae Dietrich & Dmitriev, 2006a:129

Description: Length 2.7–2.9 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, tooth-like; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Montgomery Co., Coffeyville, on *Quercus marilandica*, 25 VIII 1962 (Hepner), (INHS).

Distribution: Central USA.

Host plants: *Quercus marilandica*.

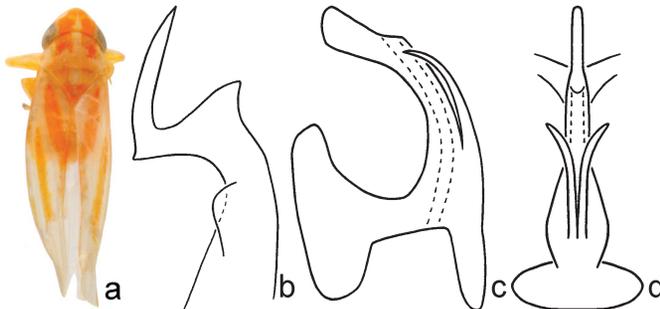


Figure 60. *E. lucileae* (Hepner).

61. *Erythridula planerae* sp.n. (Fig. 61)

Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments, connected to anal tube and pygofer appendages. Aedeagus with preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, about half as long as shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Dorsum yellow with orange color pattern; vertex with oblique lateral vittae, midline pale; anteclypeus pale, concolorous with rest of face; pronotum pale with two longitudinal stripes; mesonotum entirely pale; thoracic venter entirely pale; forewings with oblique vittae, without crossbands, clavus with continuous vitta parallel to suture. Abdomen pale dorsally.



Diagnosis: Similar to *E. stylata* Johnson, but with ventral processes of aedeagus only half as long as aedeagal shaft, and almost right angle between basal and third points of style apex.

Type locality: Holotype ♂, USA, Illinois, Pulaski Co., W. Karnak, on *Planera aquatica*, 24 IX 1952 (Ross & Evers), (INHS).

Studied material: Paratypes: 11 ♂, same data as holotype.

Host plants: *Planera aquatica*.

Distribution: Known only from type locality in southern Illinois.

Notes: The name refers to the host plant.

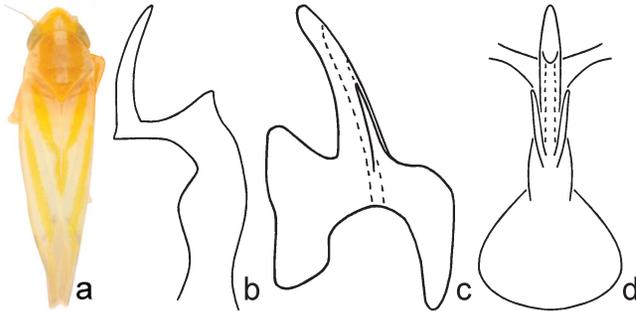


Figure 61. *E. planerae* sp.n.. a – holotype.

62. *Erythridula amabilis* (McAtee, 1924) (Fig. 62)

Erythroneura obliqua var. *amabilis* McAtee, 1924d:132

Erythroneura amabilis Beamer, 1934d:96

Erythroneura (Erythridula) amabilis Young, 1952b:82

Erythroneura (Erythridula) frazieri Hepner, 1976a:210, **syn.n.**

Erythroneura (Erythridula) harrisi Hepner, 1976a:210, **syn.n.**

Erythridula amabilis Dietrich & Dmitriev, 2006a:127



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer

than distance between other two points; angle between basal and third points less than 90° . Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Dorsum yellow; basal two thirds of forewings bright red; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.
Type locality: Holotype ♂, USA, Maryland, 1 VI 1924, (USNM).

Distribution: Eastern USA.

Host plants: Unknown; the holotype of *E. frazieri* Hepner was collected on *Carya* sp.; the holotype of *E. harrisi* Hepner was collected on *Fagus* sp.

Notes: The holotype of *E. harrisi* Hepner is an aberrant specimen with undeveloped genitalia.

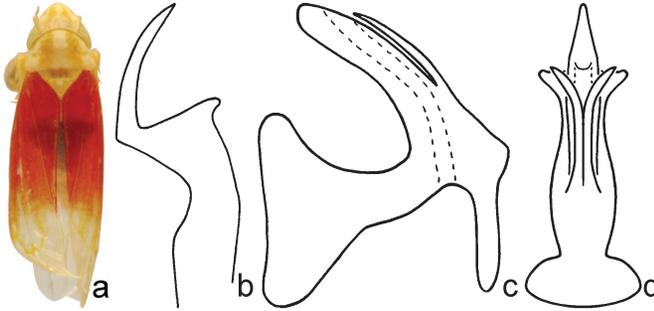


Figure 62. *E. amabilis* (McAtee). a – holotype.

63. *Erythridula stylata* (Johnson, 1935) (Fig. 63)

Erythroneura stylata Johnson, 1935a:78

Erythroneura (Erythridula) stylata Young, 1952b:84

Erythridula stylata Dietrich & Dmitriev, 2006a:131

Description: Length 2.6–2.8 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, tooth-like; third point elongate, longer than distance between other two points; angle between basal and third points less than 90° . Dorsal apodeme of aedeagus with distinct V-shaped



ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♀, USA, Ohio, Knox Co., on *Carpinus* sp., 8 V 1933 (Auten), (OSU).

Distribution: Central and eastern USA.

Host plants: *Ulmus alata*, *Carpinus caroliniana*, *Ilex decidua*.

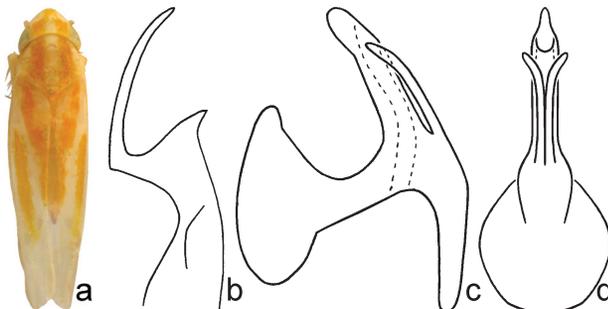


Figure 63. *E. stylata* (Johnson). a – holotype.

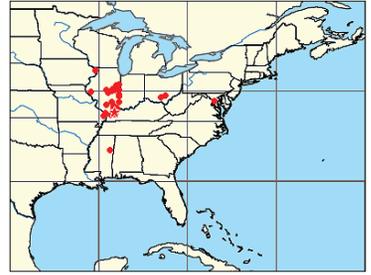
64. *Erythridula ulmosa* (Ross & DeLong, 1953) (Fig. 64, Plate 1b)

Erythreurea ulmosa Ross & DeLong, 1953a:78

Erythreurea (*Erythridula*) *chambersi* Hepner, 1976a:208, **syn.n.**

Erythreurea (*Erythridula*) *sikorowskii* Hepner, 1976a:210, **syn.n.**

Erythridula ulmosa Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus, dorsum dull yellow with reddish color pattern; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Gallatin Co., Shawneetown, on *Ulmus americana*, 14 VII 1948 (Mills & Ross), (INHS).

Distribution: Central and northeastern USA.

Host plants: *Ulmus americana*, *U. alata*, *U. rubra*, *Ilex decidua*.

Notes: The holotype of *E. chambersi* Hepner has aberrant genitalia: aedeagus with ventral processes fused for half length with aedeagal shaft (Fig. 64d₂).

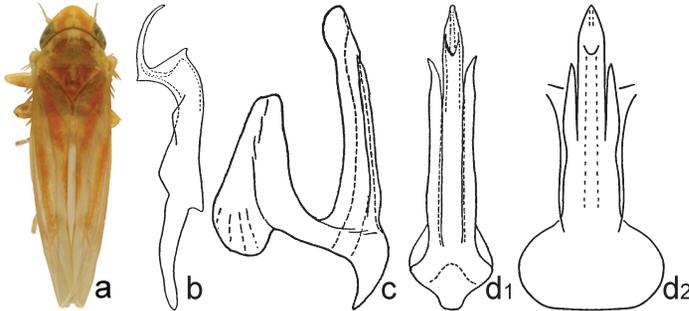


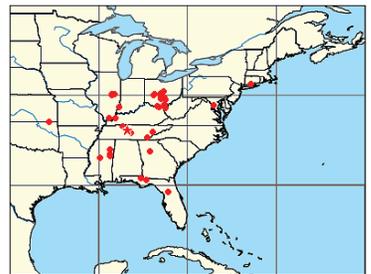
Figure 64. *E. ulmosa* (Ross & DeLong). b–d₁ – from Ross & DeLong, 1953a; d₂ – aberrant specimen, holotype of *E. chambersi* Hepner.

65. *Erythridula harpax* (Beamer, 1930) (Fig. 65)

Erythreurea harpax Beamer, 1930b:432

Erythreurea (*Erythridula*) *harpax* Young, 1952b:83

Erythridula harpax Dietrich & Dmitriev, 2006a:128



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed

basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus, slightly divergent only at apex; distal processes absent. Coloration usual for genus, dorsum dull yellow with reddish color pattern; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Tennessee, Davidson Co., Nashville, XII 1927, (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Ulmus americana*, *U. rubra*, *U. alata*, *Ilex decidua*.

Notes: The slide with holotype genitalia is missing.

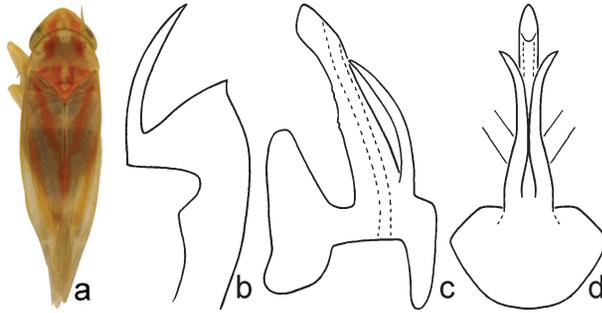


Figure 65. *E. harpax* (Beamer).

66. *Erythridula ulmalatae* (Ross & DeLong, 1953) (Fig. 66)

Erythroneura ulmalatae Ross & DeLong, 1953a:80

Erythridula ulmalatae Dietrich & Dmitriev,
2006a:131

Description: Length 2.7–2.9 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes placed basally, well separated from shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus, dorsum dull yellow with reddish color pattern; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Pope Co., Golconda, on *Ulmus alata*, 15 VII 1948 (Mills & Ross), (INHS).

Distribution: Central USA.

Host plants: *Ulmus alata*, *Ilex decidua*.

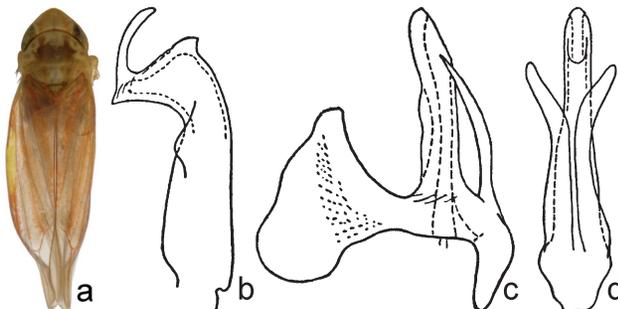
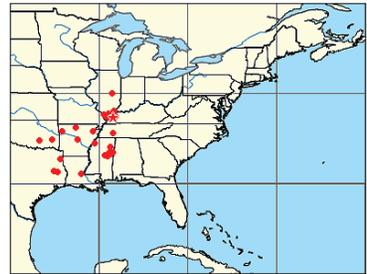
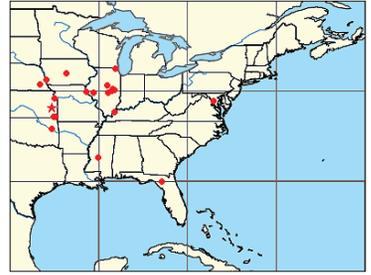


Figure 66. *E. ulmalatae* (Ross & DeLong). b–d – from Ross & DeLong, 1953a.

67. *Erythridula angularis* (Beamer, 1930) (Fig. 67)
Erythronaura angularis Beamer, 1930b:447
Erythronaura (Erythridula) angularis Young,
 1952b:82
Erythridula angularis Dietrich & Dmitriev,
 2006a:127



Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, tooth-like; third point elongate, about as long as distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, well separated from shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Anderson Co., 9 XI 1927 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: Unknown.

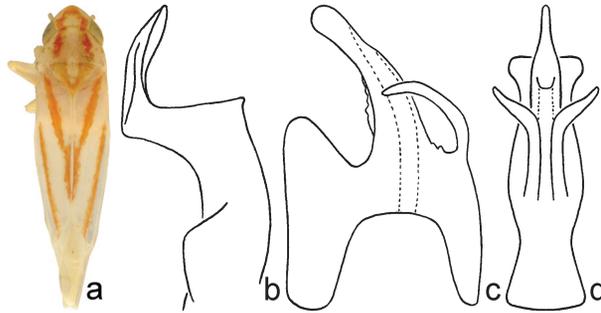


Figure 67. *E. angularis* (Beamer).

68. *Erythridula sincera* (Johnson, 1935) (Fig. 68)
Erythronaura sincera Johnson, 1935a:94
Erythronaura (Erythridula) sincera Young, 1952b:84
Erythridula sincera Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Franklin Co., 18 VIII 1931 (Breakey), (OSU).

Distribution: Northeastern USA, southeastern Canada.

Host plants: *Physocarpus apulifolius*.

Notes: The holotype has the ventral processes of the aedeagus broken.

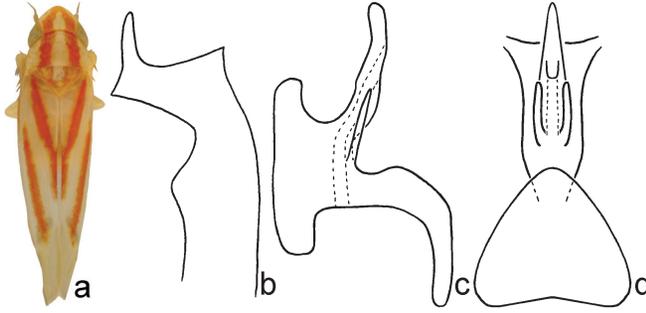


Figure 68. *E. sincera* (Johnson).

69. *Erythridula hamata* (Beamer, 1930) (Fig. 69)
Erythroneura hamata Beamer, 1930b:446
Erythroneura (Erythridula) hamata Young, 1952b:83
Erythroneura (Erythridula) belindae Hepner,
 1976a:207, **syn.n.**
Erythridula hamata Dietrich & Dmitriev, 2006a:128



Description: Length 3.1–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, smooth or denticulate on ventral side, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Acer rubrum*.

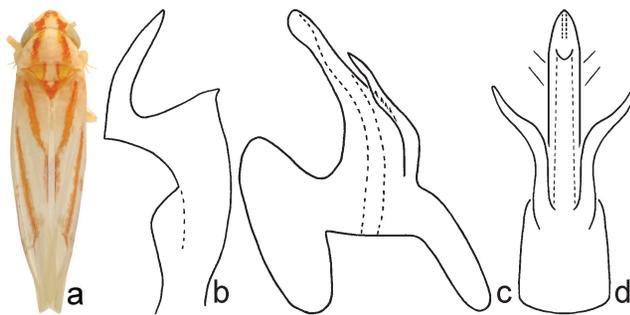


Figure 69. *E. hamata* (Beamer).

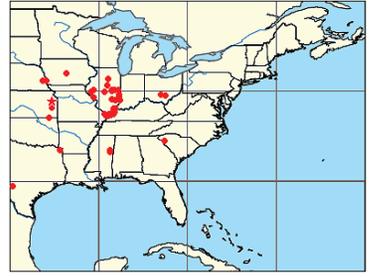
70. *Erythridula unicuspidis* (Beamer, 1930) (Fig. 70)

Erythroneura unicuspidis Beamer, 1930b:452

Erythroneura (Erythridula) unicuspidis Young,
1952b:84

Erythroneura (Erythridula) tridenoides Hepner,
1976d:312, **syn.n.**

Erythridula unicuspidis Dietrich & Dmitriev,
2006a:131



Description: Length 3.1–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with dorsal carina; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, about as long as shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).
Distribution: Central and southeastern USA.
Host plants: *Ulmus rubra*, *U. americana*.

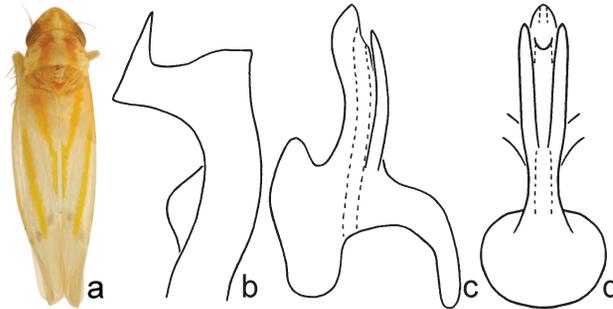


Figure 70. *E. unicuspidis* (Beamer).

71. *Erythridula obliqua* (Say, 1825) (Fig. 71)

Tettigonia obliqua Say, 1825a:342

Erythroneura obliqua Fitch, 1851a:63

Erythroneura obliqua Van Duzee, 1914a:57, missp.

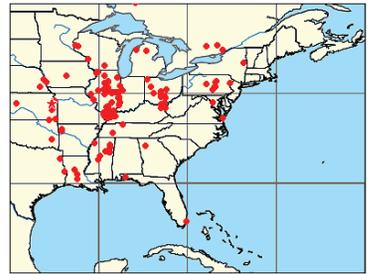
Erythroneura obliqua var. *pelta* McAtee, 1920a:278,
syn.n.

Erythroneura (Erythridula) obliqua Young,
1952b:83

Arboridia (Erythridula) obliqua Dworakowska,
1970g:615

Erythroneura (Erythridula) vierii Hepner,
1976b:125, **syn.n.**

Erythridula obliqua Dietrich & Dmitriev, 2006a:130



Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft;

shaft straight and slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Neotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Ulmus alata*, *U. americana*, *Ilex decidua*.

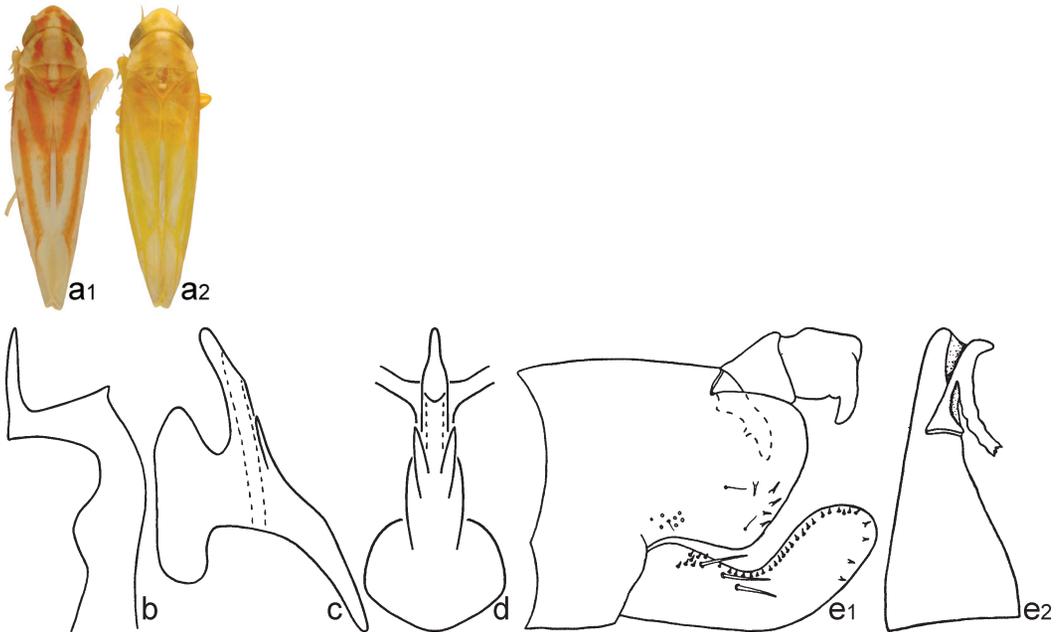


Figure 71. *E. obliqua* (Say). a1, a2 – color variation; e; – pygofer lobe and dorsal process in dorsal view; e1, e2 – from Young, 1952b.

72. *Erythridula varia* (McAtee, 1920) (Fig. 72)

Erythroneura abolla var. *varia* McAtee, 1920a:287

Erythroneura varia Beamer, 1930b:419

Erythroneura (Erythridula) varia Young, 1952b:84

Erythroneura (Erythridula) ivani Hepner,
1976d:312, **syn.n.**

Erythridula varia Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–2.9 mm. Pygofer lobe rounded.

Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points;

angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, denticulate ventrally, with lateral lobes at base, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus brown; mesonotum pale or dark; thoracic venter entirely dark; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Virginia, Fairfax Co., Mt. Vernon, 28 II 1915 (McAtee), (USNM).

Distribution: Central and northeastern USA.
Host plants: Unknown.

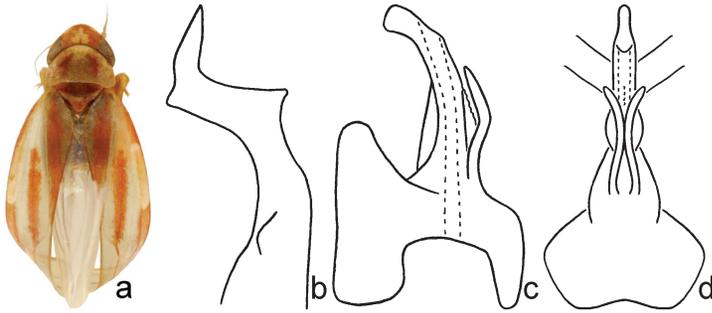


Figure 72. *E. varia* (McAtee). a – holotype.

73. *Erythridula fulvocephala* (Robinson, 1924) (Fig. 73)
Erythroneura fulvocephala Robinson, 1924b:155
Erythroneura xanthocephala Robinson, 1924d:220,
 unjust.emend.
Erythroneura (Erythridula) xanthocephala Young,
 1952b:83
Erythroneura (Erythridula) lianae Hepner, 1976b:125,
 syn.n.
Erythroneura (Erythridula) fretoides Hepner, 1977c:364, syn.n.
Erythridula fulvocephala Dietrich & Dmitriev, 2006a:128



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe angulate. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, parallel to each other on ventral side of aedeagus; distal processes absent. Coloration usual for genus; general color pattern dull yellow; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.
Type locality: Holotype ♂, USA, Kansas, Douglas Co., (Lawson), (KSEM).
Distribution: Central and Eastern USA, southern Canada.
Host plants: *Aesculus* sp., *Ulmus* spp., *Ilex deciduas*, *Quercus* spp., *Cercis canadensis*.

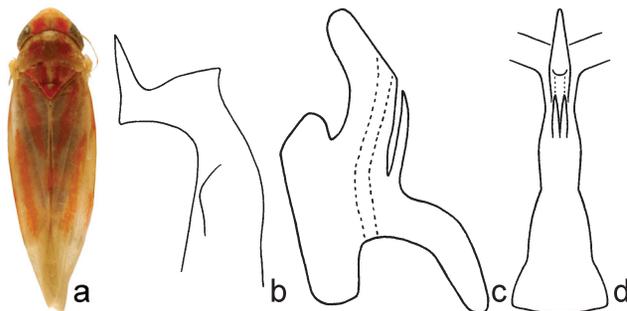
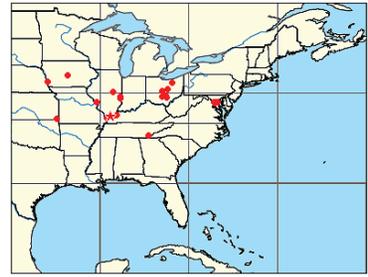


Figure 73. *E. fulvocephala* (Robinson).

74. *Erythridula bicornis* (Beamer, 1930) (Fig. 74)*Erythroneura bicornis* Beamer, 1930b:450*Erythroneura (Erythridula) bicornis* Young,
1952b:82*Erythridula bicornis* Dietrich & Dmitriev, 2006a:127

Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round or compressed, smooth or denticulate ventrally, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Beamer), (KSEM).

Distribution: Central and northeastern USA.

Host plants: Unknown; collected on *Carpinus* sp., *Carya ovata*, *Cercis canadensis*, *Quercus* spp., *Ulmus americana*.

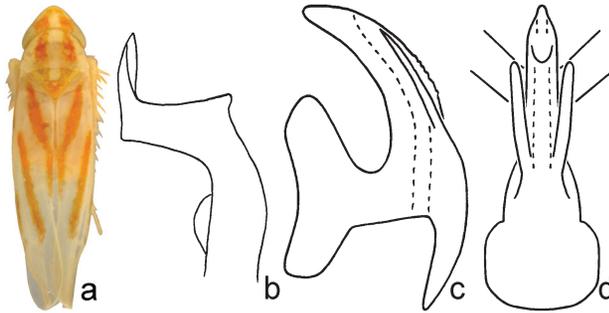


Figure 74. *E. bicornis* (Beamer).

75. *Erythridula obvia* (Beamer, 1930) (Fig. 75)*Erythroneura obvia* Beamer, 1930b:439*Erythroneura (Erythridula) obvia* Young, 1952b:83*Erythroneura (Erythridula) chandleri* Hepner,
1976c:296, **syn.n.***Erythridula obvia* Dietrich & Dmitriev, 2006a:130

Description: Length 3–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, about as long as or longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross section, smooth, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus dark; thoracic venter entirely dark; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Arkansas, Polk Co., 21 VIII 1928 (Beamer), (KSEM).

Distribution: Central and northeastern USA.

Host plants: Unknown; collected on *Ilex decidua*, *Aesculus* sp., *Quercus* spp.

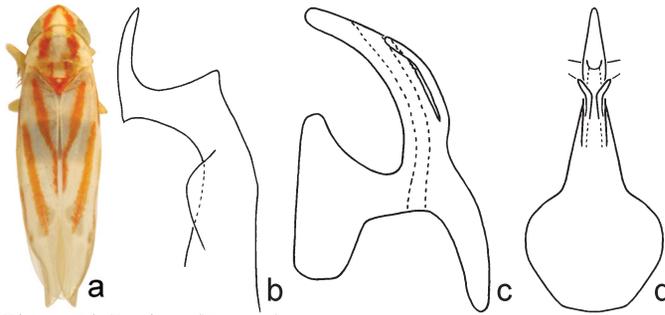


Figure 75. *E. obvia* (Beamer).

76. *Erythridula minuta* (Johnson, 1935) (Fig. 76)

Erythroniura minuta Johnson, 1935a:93

Erythroniura fragilis Johnson, 1935a:93, **syn.n.**

Erythroniura (Erythridula) minuta Young, 1952b:83

Erythroniura (Erythridula) garretsoni Hepner, 1976c:295, **syn.n.**

Erythroniura (Erythridula) pecanae Hepner, 1976c:297, **syn.n.**

Erythridula minuta Dietrich & Dmitriev, 2006a:129



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe angulate. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, round or compressed, denticulate ventrally, not rarely with large ventral crest, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, divergent only at apex; distal processes short, toothlike, apical, or absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Arkansas, Polk Co., 21 VIII 1928 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Carya* spp., *Ilex decidua*, *Acer* spp., *Carpinus caroliniana*, *Quercus* spp.,

Notes: The holotype of *E. minuta* Johnson has the aedeagus with a strong ventral crest (Fig. 76c2), and the holotype of *E. fragilis* Johnson has the aedeagus with ventral processes originating slightly distad of the base of the shaft. The genitalia of these forms and other taxa here included as junior synonyms intergrade among the specimens examined, both within and among populations, and are therefore considered to represent morphological variants of a single species.

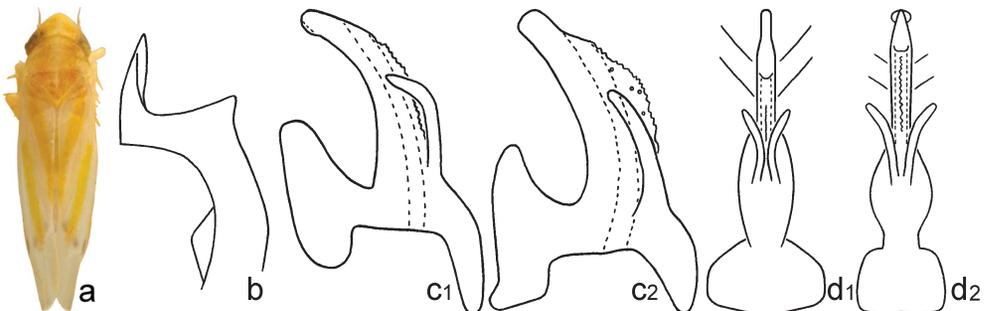


Figure 76. *E. minuta* (Johnson). c1–d2 – variation in shape of aedeagal shaft. c2 – holotype.

77. *Erythridula wyatti* sp.n. (Fig. 77)

Description: Length 2.7–2.9 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point subequal in size or shorter than second; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments, connected to anal tube and pygofer appendages; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, smooth, without dorsal carina or distal lobe; aedeagal apex broadened and emarginate in ventral view; ventral processes absent; distal processes long, apical, slender. Dorsum pale yellow, with pale orange color pattern; vertex with oblique lateral vittae, midline pale; anteclypeus pale, concolorous with rest of face; pronotum pale with two longitudinal stripes; mesonotum entirely pale; thoracic venter pale; forewings with oblique vittae, without crossbands; clavus with continuous vitta parallel to suture; abdomen pale dorsally.

Diagnosis: Similar to *E. idonea* Beamer, but with compressed aedeagus, broad in lateral view.

Type locality: Holotype ♂, USA, Florida, Hamilton Co., Jasper, 11 XII 1949 (Stannard et. al.), (INHS).

Studied material: Paratypes 2 ♂, Florida, Hamilton Co., Jasper, 11 XII 1949 (Stannard et. al.), (INHS); 2 ♂, 2 ♀, Florida, Taylor Co., Perry, on *Rubus cuneifolius*, 17 XII 1949 (Stannard et. al.), (INHS); 1 ♀, Florida, Taylor Co., Perry, on *Myrica cerifera*, 17 XII 1949 (Stannard et. al.), (INHS); 1 ♂, Georgia, Dougherty Co., Albany, 31,578°N 84,156°W, on *Rubus* sp., 15 VI 1963 (Hepner), (MEM).

Distribution: Southeastern USA.

Host plants: *Rubus cuneifolius*.

Notes: This species is named in honor of Mr. Wyatt Tapscott of Champaign, Illinois, a participant in the Illinois Natural History Survey's 150th Anniversary Expo.

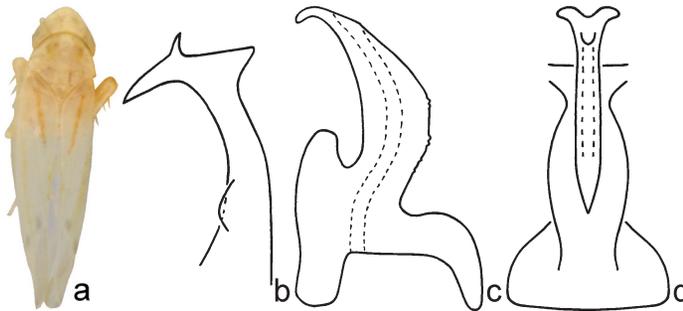


Figure 77. *E. wyatti* sp.n.

78. *Erythridula lemnisca* (McAtee, 1926) (Fig. 78, Plate 1d)

Erythroneura abolla var. *lemnisca* McAtee,
1926c:131

Erythroneura abolla var. *lemnisca* DeLong &
Caldwell, 1937c:70, missp.

Erythridula lemnisca Dietrich & Dmitriev,
2006a:129

Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point very short, originate closer to basal point; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments;



preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, depressed, without dorsal carina or distal lobe; apex broadened and emarginate in ventral view; ventral processes absent; distal processes long, apical, slender. Dorsum mostly reddish and brownish; vertex brownish; anteclypeus pale, concolorous with rest of face; pronotum dark with pale lateral margins; mesonotum entirely dark; thoracic venter with dark mesosternum, remainder pale; forewings dark with pale apices; abdomen dark dorsally.

Type locality: Holotype ♀, USA, Illinois, Champaign Co., Urbana, on *Populus* sp., 12 VII 1920 (Alexander), (INHS).

Distribution: Central and northeastern USA.

Host plants: *Aesculus glabra*.

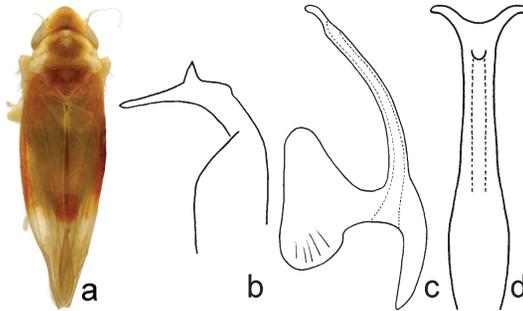


Figure 78. *E. lemnisca* (McAtee). a – holotype.

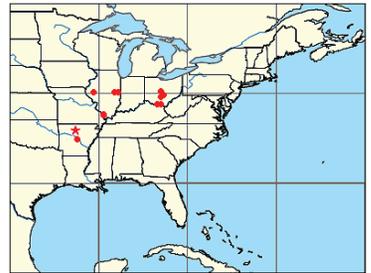
79. *Erythridula idonea* (Beamer, 1935) (Fig. 79)

Erythroneura idonea Beamer, 1935a:100

Erythroneura gargantua Johnson, 1935a:81

Erythroneura (Erythridula) idonea Young, 1952b:83

Erythridula idonea Dietrich & Dmitriev, 2006a:129



Description: Length 3.4–3.7 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point very short; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes absent; distal processes long, apical, slender. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Arkansas, Searcy Co., Marshall, 22 III 1931 (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Aesculus glabra*, *A. octandra*.

Notes: The slide with holotype genitalia is missing.

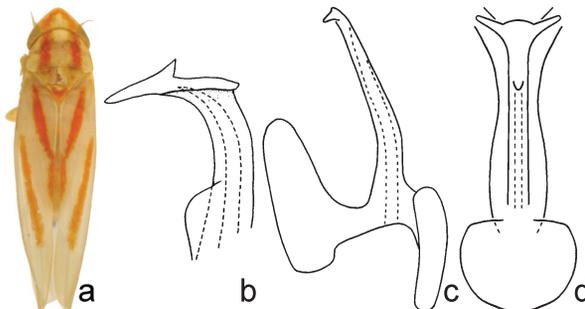


Figure 79. *E. idonea* (Beamer). b – from Young, 1952b.

80. *Erythridula beckiae* (Hepner, 1978) (Fig. 80)
Erythroneura (*Erythridula*) *beckiae* Hepner,
 1978a:131
Erythridula beckiae Dietrich & Dmitriev, 2006a:127



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, tooth-like; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex angulate in ventral view; ventral processes absent; distal processes long, subapical, long, flattened, triangular. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Mississippi, Oktibbeha Co., State College, on *Ilex decidua*, 21 VI 1963 (Hepner), (INHS).

Distribution: Known only from the type locality in Mississippi.

Host plants: *Ilex decidua*.

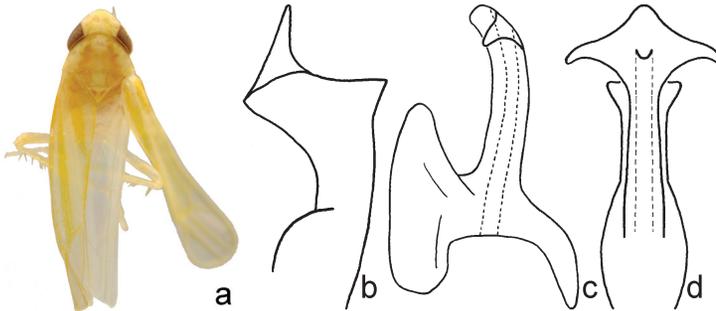
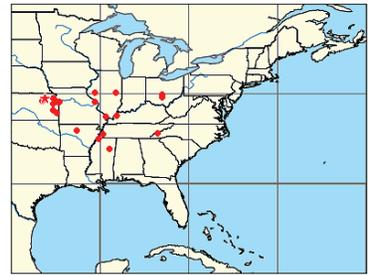


Figure 80. *E. beckiae* (Hepner).

81. *Erythridula crevecoeuri* (Gillette, 1898) (Fig. 81,
 Plate 1f)
Typhlocyba crevecoeuri Gillette, 1898a:767
Typhlocyba crevecouri Osborn, 1905d:274, missp.
Erythroneura crevecoeuri Van Duzee, 1916a:77
Erythroneura crevicoeuri Brimley, 1938a:98, missp.
Erythroneura (*Erythridula*) *crevecoeuri* Young,
 1952b:82
Erythridula crevecoeuri Dietrich & Dmitriev,
 2006a:128



Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, depressed, without dorsal carina or distal lobe; aedeagal apex broadened and emarginate in ventral view; ventral processes absent; distal processes long, apical, slender. Dorsum mainly reddish brown; vertex unicolorous, yellow; anteclypeus pale; pronotum brown with pale lateral margins; mesonotum entirely dark; thoracic venter with dark mesosternum, remainder pale; forewings dark with pale apices; abdomen dark dorsally.

Type locality: Holotype ♀, USA, Kansas, Pottawatomie Co., Onaga, among leaves in timber,

early spring, (Crevecoeur), (USNM).

Distribution: Central and southeastern USA.

Host plants: *Aesculus glabra*.

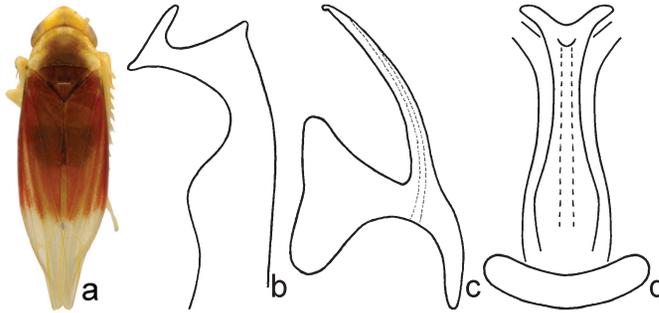


Figure 81. *E. crevecoeuri* (Gillette).

82. *Erythridula malleiformis* (Beamer, 1930) (Fig. 82)

Erythroneura malleiformis Beamer, 1930b:449

Erythroneura (*Erythridula*) *malleiformis* Young, 1952b:83

Erythridula malleiformis Dietrich & Dmitriev, 2006a:129



Description: Length 2.9–3.1 mm. 2S abdominal apodemes small, narrow, extended dorsomesad. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft; shaft straight and slender in lateral view, depressed, without dorsal carina or distal lobe; aedeagal apex broadened and emarginate in ventral view; ventral processes absent; distal processes long, apical, slender. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Cherokee Co., 1928, (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Prunus lanata*.

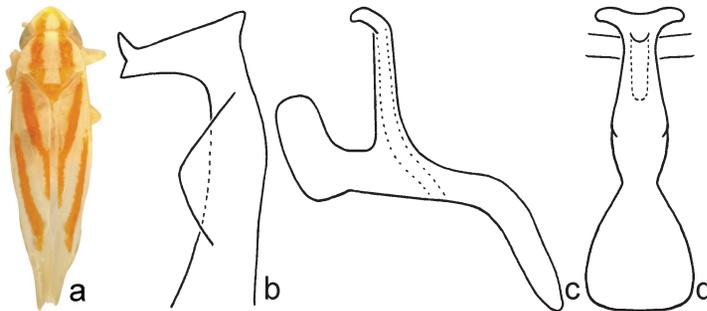


Figure 82. *E. malleiformis* (Beamer).

83. *Erythridula meridiana* (Hepner, 1977) (Fig. 83)
Erythroneura (*Erythridula*) *meridiana* Hepner,
 1977b:53
Erythridula meridiana Dietrich & Dmitriev,
 2006a:129



Description: Length 2.9–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus triangular, without sclerotized connection to anal tube or pygofer appendages; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex bifid in ventral view; ventral processes absent; distal processes long, apical, flattened. Dorsum yellow, color pattern absent; usually with brownish stripe along entire dorsum; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Florida, Highlands Co., Sebring, on *Quercus* sp., 28 XII 1960 (Hepner), (INHS).

Distribution: Known only from the type locality in Florida.

Host plants: *Quercus* sp.

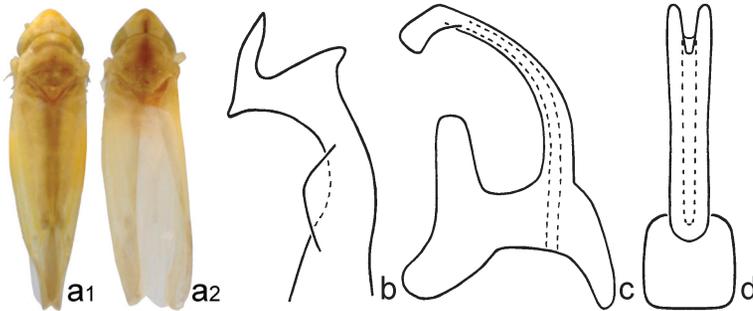
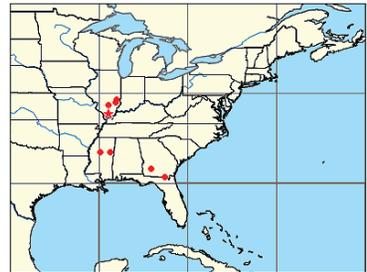


Figure 83. *E. meridiana* (Hepner). a2 – holotype.

84. *Erythridula zephyr* (Ross & DeLong, 1953) (Fig. 84)
Erythroneura zephyr Ross & DeLong, 1953a:84
Erythroneura (*Erythridula*) *velutinae* Hepner,
 1977b:51, **syn.n.**
Erythroneura (*Erythridula*) *newtonensis* Hepner,
 1978a:133, **syn.n.**
Erythridula zephyr Dietrich & Dmitriev, 2006a:131



Description: Length 2.9–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points. Angle between basal and third points less than 90°. Dorsal apodeme of aedeagus triangular, without sclerotized connection to anal tube or pygofer appendages; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened and emarginate in ventral view; ventral processes absent; distal processes long, apical, flattened. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Williamson Co., N. Marion, on *Quercus imbricaria*,

21 IX 1950 (Ross & Evers), (INHS).

Distribution: Central and southeastern USA.

Host plants: *Quercus imbricaria*, *Q. velutina*, and other species of *Quercus*.

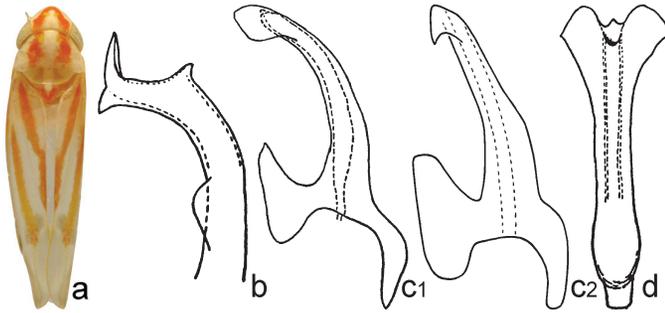


Figure 84. *E. zephyr* (Ross & DeLong). b, c1, d – from Ross & DeLong, 1953a; c2 – holotype, *E. velutinae* Hepner.

85. *Erythridula ilicis* (Ross, 1953) (Fig. 85)

Erythronaura ilicis Ross, 1953b:189

Erythronaura illicis Ross, 1953b:188, missp.

Erythronaura (Erythridula) navoides Hepner, 1977b:50, **syn.n.**

Erythridula ilicis Dietrich & Dmitriev, 2006a:129



Description: Length 3–3.4 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsally, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex bifid in ventral view; ventral processes absent; distal processes long, apical, slender. Coloration usual for genus; ground color brownish yellow; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., Grantsburg, on *Ilex decidua*, 31 VIII 1951 (Richards & Ross), (INHS).

Distribution: Central USA.

Host plants: *Ilex decidua*.

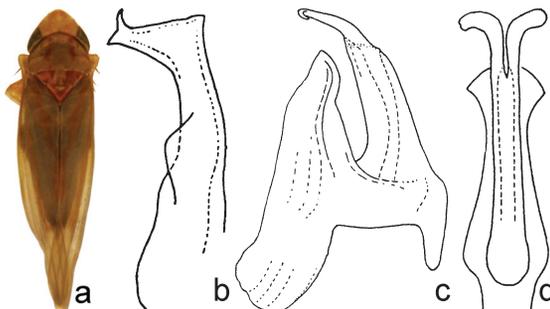
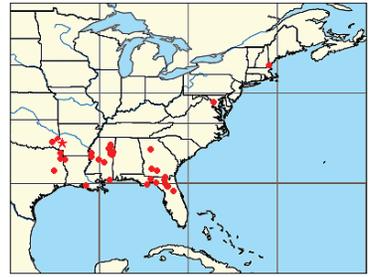


Figure 85. *E. ilicis* (Ross). b–d – from Ross, 1953b.

86. *Erythridula parvispicata* (Beamer, 1930) (Fig. 86)
Erythroneura parvispicata Beamer, 1930b:435
Erythroneura parvispicata Beamer, 1935a:100,
 missp.
Erythroneura cavena Auten & Johnson, 1936a:61,
syn.n.
Erythroneura (Erythridula) parvispicata Young,
 1952b:83
Erythroneura florida Ross & DeLong, 1953a:82,
syn.n.
Erythridula parvispicata Dietrich & Dmitriev,
 2006a:130



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight or slightly curved dorsad, slender in lateral view, round or compressed, without dorsal carina or distal lobe; aedeagal apex bifid in ventral view; ventral processes absent; distal processes long, apical, slender, compressed. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Arkansas, Polk Co., 21 VIII 1928 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Quercus nigra*, *Q. phellos*, and other species of *Quercus*.

Notes: The holotype was collected on 21 VIII 1928, not on 21 II 1928 as stated in the original publication. The distal processes of the aedeagus of the holotype of *E. cavena* Auten & Johnson (Fig. 86c₂) are more strongly compressed than usual, but this variation appears to be intraspecific.

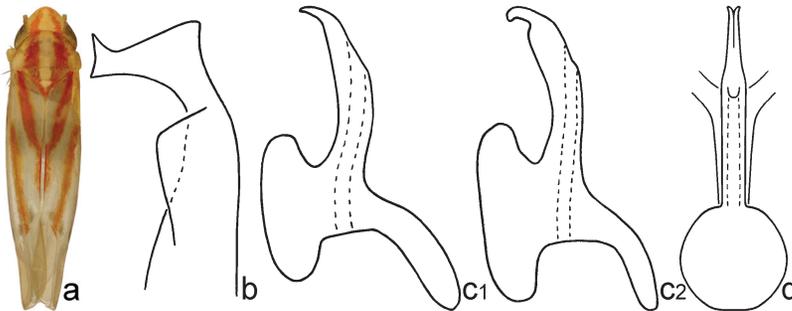


Figure 86. *E. parvispicata* (Beamer). c₂ – aedeagus of *E. cavena*, Auten & Johnson.

87. *Erythridula insigna* (Beamer & Griffith, 1935) (Fig. 87)
Erythroneura insigna Beamer & Griffith, 1935a:17
Erythroneura (Erythridula) insigna Young,
 1952b:83
Erythroneura (Erythridula) vartyi Hepner,
 1977b:51, **syn.n.**
Erythridula insigna Dietrich & Dmitriev,
 2006a:129



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less

than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened and emarginate in ventral view; ventral processes absent; distal processes long, apical, flattened, with two points. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, Canada, British Columbia, Vernon, 5 VIII 1931 (Beamer), (KSEM).

Distribution: Northwestern, central, and eastern USA, southern Canada.

Host plants: *Malus* sp.

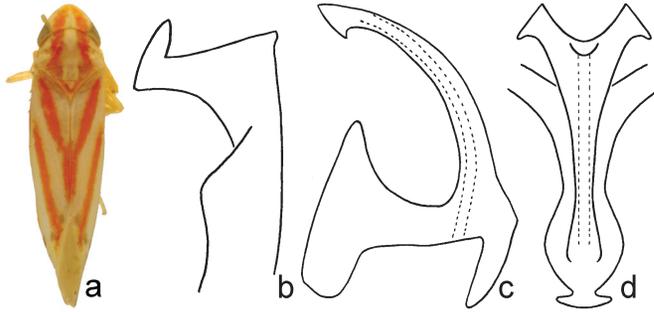


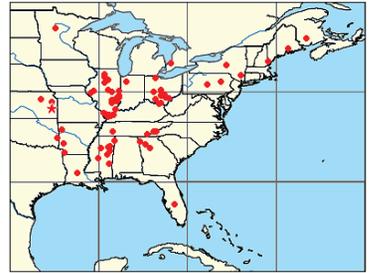
Figure 87. *E. insigna* (Beamer & Griffith).

88. *Erythridula cornipes* (Beamer, 1930) (Fig. 88)

Erythronaura cornipes Beamer, 1930b:449

Erythronaura (Erythridula) cornipes Young, 1952b:82

Erythridula cornipes Dietrich & Dmitriev, 2006a:128



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus triangular, without sclerotized connection to anal tube or pygofer appendages; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex bifid in ventral view; ventral processes absent; distal processes long, apical, flattened. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Anderson Co., 29 XI 1927 (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Quercus alba*, *Q. muehlenbergii*, *Q. imbricaria*, *Q. velutina*, and other species of *Quercus*.

Notes: The holotype was collected on 29 XI 1927, not on 26 XI 1927 as stated in the original publication.

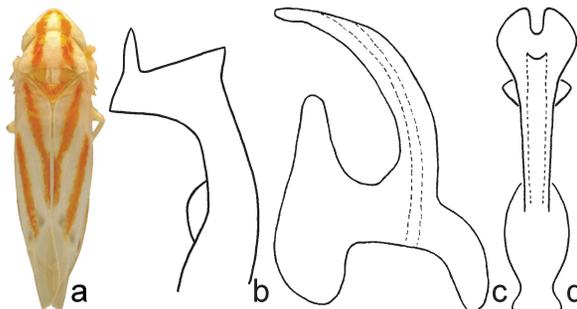
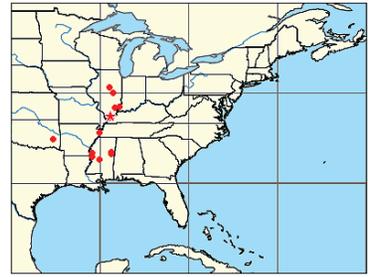


Figure 88. *E. cornipes* (Beamer).

89. *Erythridula falcata* (Beamer, 1930) (Fig. 89)*Erythroneura falcata* Beamer, 1930b:432*Erythroneura (Erythridula) falcata* Young, 1952b:83*Erythroneura (Erythridula) ilexae* Hepner,
1976d:315, **syn.n.***Erythroneura (Erythridula) rolandi* Hepner,
1977c:364, **syn.n.***Erythridula falcata* Dietrich & Dmitriev, 2006a:128

Description: Length 2.9–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, divergent at right angle, expanded at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Ilex decidua*.

Notes: The holotype of *E. rolandi* Hepner is a specimen with the ventral processes of the aedeagus broken.

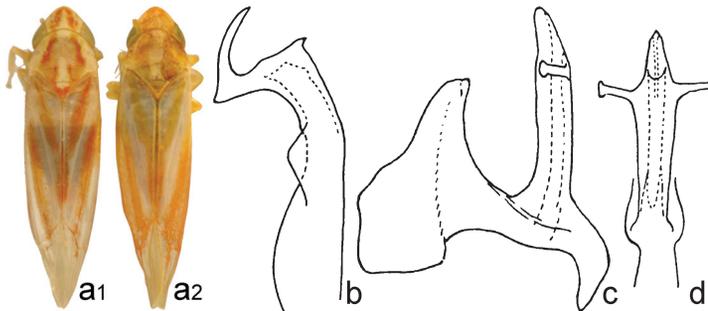


Figure 89. *E. falcata* (Beamer). a1, a2 – color variations; b–d – from Ross, 1953b.

90. *Erythridula herberti* (Hepner, 1976) (Fig. 90)*Erythroneura (Erythridula) herberti* Hepner,
1976d:312*Erythridula herberti* Dietrich & Dmitriev, 2006a:129

Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point broad, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, divergent at right angle, expanded at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.



Type locality: Holotype ♂, USA, Mississippi, Oktibbeha Co., Starkville, on *Quercus stellata*, 8 VIII 1962 (Hepner), (INHS).

Distribution: Central and eastern USA.

Host plants: *Ilex decidua*.

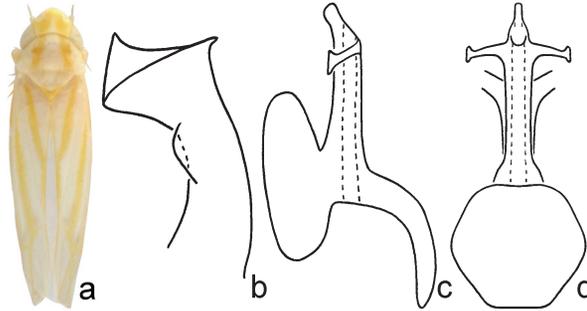


Figure 90. *E. herberti* (Hepner). a – holotype.

91. *Erythridula acutalis* (Ross & DeLong, 1953) (Fig. 91)

Erythroneura acutalis Ross & DeLong, 1953a:83

Erythridula acutalis Dietrich & Dmitriev, 2006a:127

Description: Length 2.8 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.



Type locality: Holotype ♂, USA, Florida, Hamilton Co., White Springs, 11 XII 1949 (Stannard et. al.), (INHS).

Distribution: Known only from the type locality in Florida.

Host plants: Unknown.

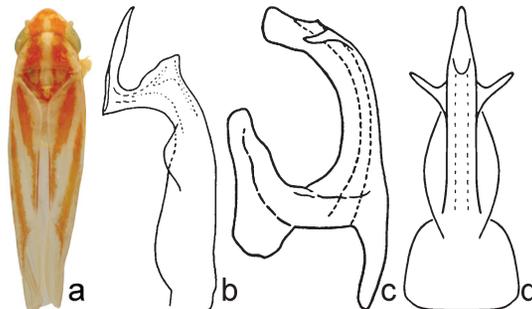
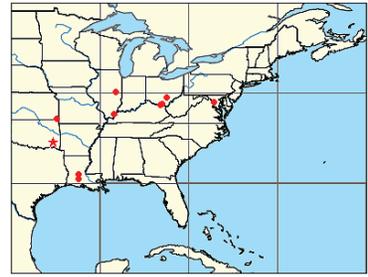


Figure 91. *E. acutalis* (Ross & DeLong). b–c – from Ross and DeLong, 1953a

92. *Erythridula cotidiana* (Beamer, 1930) (Fig. 92)*Erythroneura cotidiana* Beamer, 1930b:433*Erythroneura (Erythridula) cotidiana* Young,
1952b:82*Erythroneura (Erythridula) adae* Hepner, 1977c:363,
syn.n.*Erythridula cotidiana* Dietrich & Dmitriev,
2006a:128

Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, tooth-like; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, evenly divergent; distal processes absent. Dorsum dull yellow, with reddish or brownish color pattern; vertex with oblique lateral vittae or with large basal dark area; anteclypeus pale; pronotum dark with pale lateral margins; mesonotum entirely dark; thoracic venter pale; forewings with oblique vittae; clavus mainly dark; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Oklahoma, Pushmataha Co., Tuskahoma, 23 V 1928 (Beamer), (KSEM).

Distribution: Central and northeastern USA.

Host plants: Unknown.

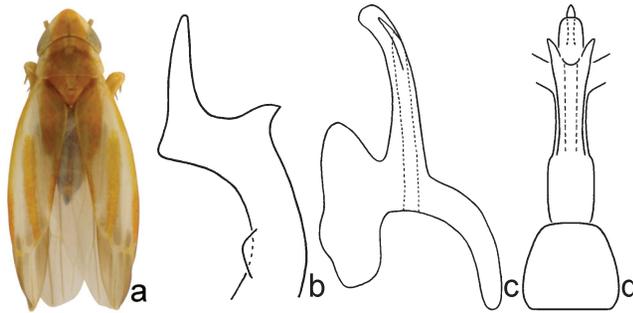


Figure 92. *E. cotidiana* (Beamer).

93. *Erythridula tenebrosa* (Knull, 1946) (Fig. 93)*Erythroneura tenebrosa* Knull, 1946a:48*Erythroneura (Erythridula) tenebrosa* Young,
1952b:84*Erythroneura (Erythridula) fagiphylla* Hepner,
1977a:254, **syn.n.***Erythridula tenebrosa* Dietrich & Dmitriev,
2006a:131

Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsally, slender in lateral view, round in crosssection, with long dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, evenly divergent; distal

processes absent. Coloration usual for genus; anteclypeus pale, thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Ohio, Delaware Co., 30 IV 1944 (Knull), (OSU).

Distribution: Central and eastern USA.

Host plants: *Fagus grandifolia*.

Notes: The holotype of *E. fagiphylla* Hepner is missing; paratypes of the species from Hepner's collection were studied.

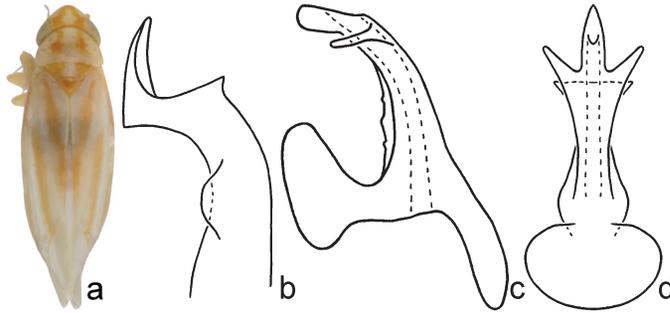


Figure 93. *E. tenebrosa* (Knull).

94. *Erythridula tenuispica* (Beamer, 1930) (Fig. 94)

Erythronaura tenuispica Beamer, 1930b:444

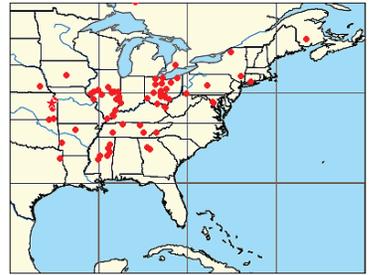
Erythronaura (*Erythridula*) *tenuispica* Young, 1952b:84

Erythronaura (*Erythridula*) *caryaglabrae* Hepner, 1977a:250, **syn.n.**

Erythronaura (*Erythridula*) *parrotti* Hepner, 1977a:251, **syn.n.**

Erythronaura (*Erythridula*) *rosenkranzi* Hepner, 1977a:254, **syn.n.**

Erythridula tenuispica Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate about as long as distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: *Carpinus* sp.

Notes: The holotypes of *E. caryaglabrae* Hepner, *E. parrotti* Hepner, and *E. rosenkranzi* Hepner are missing; paratypes of those species from Hepner's collection were studied.

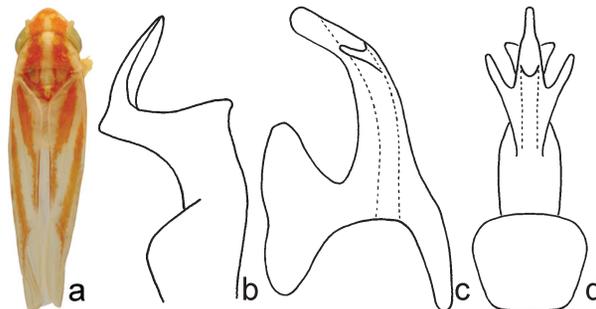


Figure 94. *E. tenuispica* (Beamer).

95. *Erythridula rugosae* (Ross & DeLong, 1953) (Fig. 95)
Erythroneura rugosae Ross & DeLong, 1953a:80
Erythridula rugosae Dietrich & Dmitriev, 2006a:130

Description: Length 2.7–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with dorsal carina; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Pope Co., Dixon Springs, on *Alnus rugosa*, 15 VII 1948 (Mills & Ross), (INHS).

Distribution: Central and southeastern USA.

Host plants: *Alnus rugosa*.

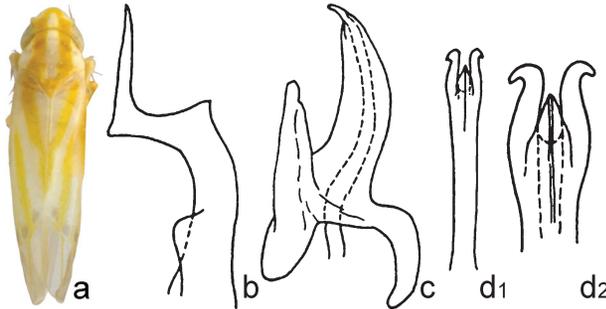
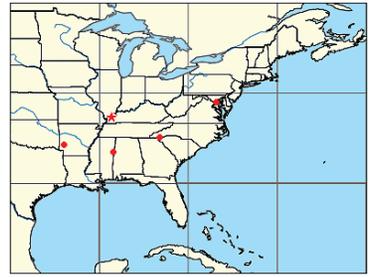
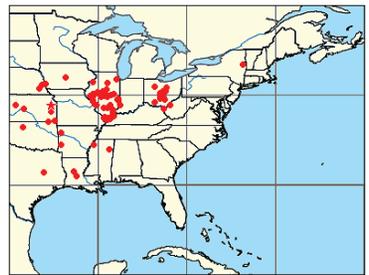


Figure 95. *E. rugosae* (Ross & DeLong). a – holotype; b–d2 – from Ross & DeLong, 1953a.

96. *Erythridula kanza* (Robinson, 1924) (Fig. 96)
Erythroneura kanza Robinson, 1924a:58
Erythroneura kanza Medler, 1943a:150, missp.
Erythroneura (Erythridula) kanza Young, 1952b:83
Erythridula kanza Dietrich & Dmitriev, 2006a:129

Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsally, slender in lateral view, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Dorsum dull yellow, with reddish color pattern; vertex with oblique lateral vittae; anteclypeus pale, concolorous with rest of face; pronotum dark with pale lateral margins; mesonotum pale or dark; thoracic venter with dark mesosternum, remainder pale; forewings with oblique vittae, sometimes fused together; abdomen dark dorsally.



Type locality: Holotype ♂, USA, Kansas, Douglas Co., (Lawson), (KSEM).

Distribution: Central and northeastern USA.

Host plants: *Ulmus americana*, *Ilex decidua*.

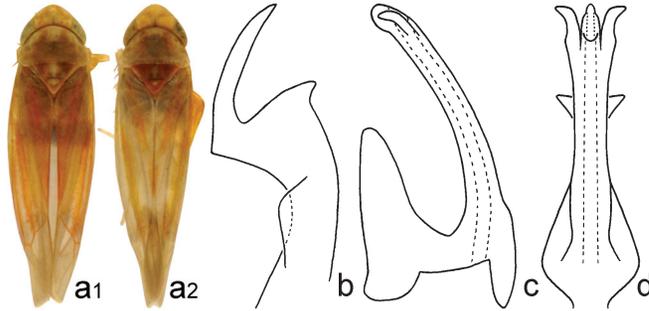


Figure 96. *E. kanza* (Robinson). a1, a2 – color variations.

97. *Erythridula spatulata* (Beamer, 1930) (Fig. 97)

Erythroneura spatulata Beamer, 1930b:444

Erythroneura decorata Auten & Johnson, 1936a:63,

syn.n.

Erythroneura (Erythridula) spatulata Young, 1952b:84

Erythridula spatulata Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, depressed, with small compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes arising near apex of shaft, evenly divergent; distal processes short, toothlike, apical, or absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Crataegus* spp.

Notes: *E. decorata* Auten & Johnson was described as having the aedeagal processes arising from the base of the shaft, but this appears to be some contaminant particles embedded in the balsam of the holotype slide.

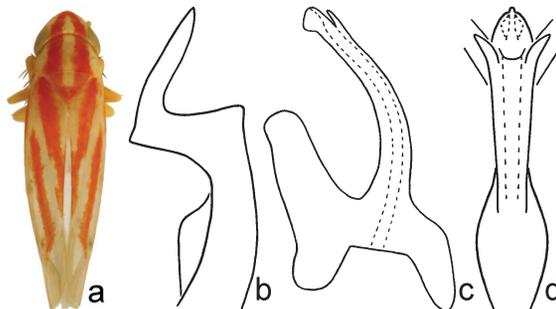
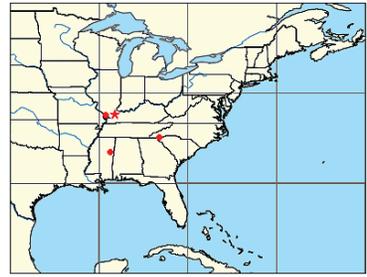


Figure 97. *E. spatulata* (Beamer).

98. *Erythridula frisoni* (Ross & DeLong, 1953) (Fig. 98)
Erythroneura frisoni Ross & DeLong, 1953a:80
Erythroneura (Erythridula) pagodifoliae Hepner,
 1977b:52, **syn.n.**
Erythroneura (Erythridula) rubiphylla Hepner,
 1977b:52, **syn.n.**
Erythroneura (Erythridula) leucophylla Hepner,
 1977b:55, **syn.n.**
Erythroneura (Erythridula) joanneae Hepner,
 1978a:133, **syn.n.**
Erythridula frisoni Dietrich & Dmitriev, 2006a:128



Description: Length 2.8–3.1 mm. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.
Type locality: Holotype ♂, USA, Illinois, Gallatin Co., Gibsonia, 2 X 1934 (Frison & Ross), (INHS).

Distribution: Central and southeastern USA.

Host plants: *Quercus pagoda*.

Notes: The original description of *E. rubiphylla* Hepner, erroneously states that the aedeagal processes arise at the base of the shaft.

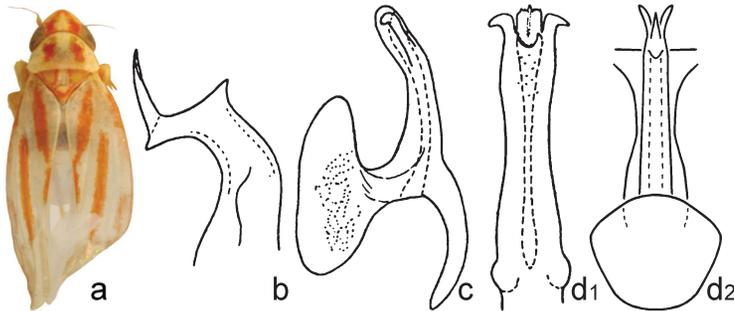


Figure 98. *E. frisoni* (Ross & DeLong). b–d1 – from Ross & DeLong, 1953a; d2 – holotype, *E. leucophylla* Hepner.

99. *Erythridula sinua* (Johnson, 1935) (Fig. 99)
Erythroneura sinua Johnson, 1935a:82
Erythroneura extima Beamer, 1939a:29, **syn.n.**
Erythroneura (Erythridula) sinua Young, 1952b:84
Erythridula sinua Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point very short; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, slightly divergent, ap-

pressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Pickaway Co., 31 III 1934 (Caldwell), (OSU).

Distribution: Northwestern, central, and eastern USA, southern Canada.

Host plants: *Prunus virginiana*.

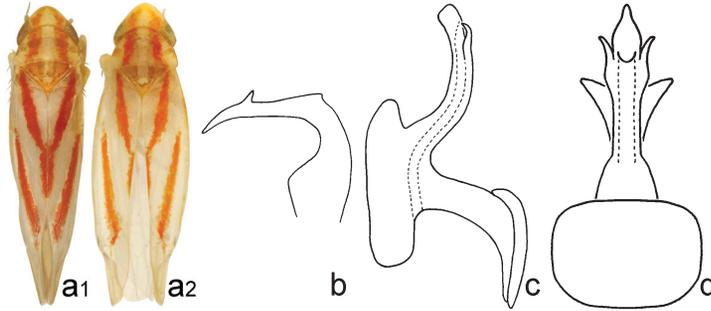


Figure 99. *E. sinua* (Johnson). a1, a2 – color variations.

100. *Erythridula normanti* (Hepner, 1976) (Fig. 100)

Erythroneura (*Erythridula*) *normanti* Hepner, 1976b:120

Erythroneura (*Erythridula*) *ulmarubrae* Hepner, 1976d:313, **syn.n.**

Erythroneura (*Erythridula*) *ulmarubrae* Hepner, 1976d:310, missp.

Erythroneura (*Erythridula*) *extimoides* Hepner, 1976d:314, **syn.n.**

Erythridula normanti Dietrich & Dmitriev, 2006a:130



Description: Length 2.6–2.7 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, depressed, with small compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Brown Co., Siloam Springs, 29 IV 1960 (Ross & Cunningham), (INHS).

Distribution: Central USA.

Host plants: *Ilex decidua*, *Ulmus alata*.

Notes: Ventral processes of aedeagus of *E. normanti* Hepner and *E. ulmarubrae* Hepner arise at the apex of aedeagal shaft, not at the base as erroneously described in the original publications.

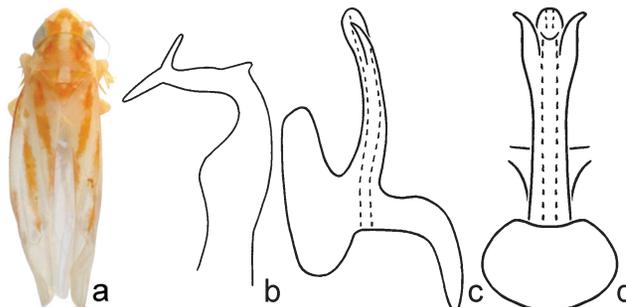
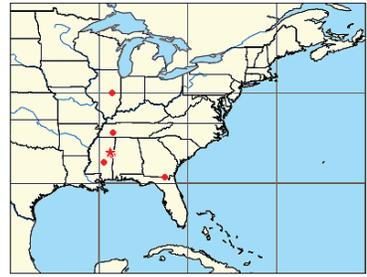


Figure 100. *E. normanti* (Hepner).

101. *Erythridula nigriphylla* (Hepner, 1977) (Fig. 101)
Erythroneura (*Erythridula*) *nigriphylla* Hepner,
 1977b:54
Erythroneura (*Erythridula*) *phelliphylla* Hepner,
 1977b:54, **syn.n.**
Erythroneura (*Erythridula*) *cautooides* Hepner,
 1977c:363, **syn.n.**
Erythridula nigriphylla Dietrich & Dmitriev,
 2006a:130



Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Mississippi, Oktibbeha Co., State College, cage #239, 28 VII 1967 (Hepner), (INHS).

Distribution: Central and southeastern USA.

Host plants: *Quercus nigra*, *Q. phellos*.

Notes: The holotype was reared in cage #239 in 1967, not in cage #401 in 1964 as stated in the original publication.

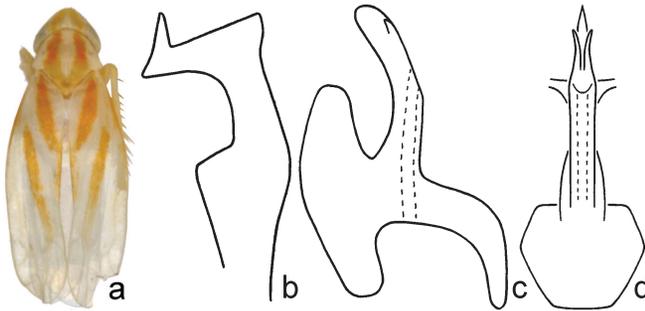


Figure 101. *E. nigriphylla* (Hepner).

102. *Erythridula rhododendronae* (Hepner, 1978), **emend.** .
 (Fig. 102)
Erythroneura (*Erythridula*) *rhododendronae* Hepner,
 1978a:134
Erythridula rhododendronae Dietrich & Dmitriev,
 2006a:130



Description: Length 2.8 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex acuminate in ventral view; ventral

processes arising near apex of shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Tennessee, Henderson Co., Lexington, on *Rhododendron* sp., 3 VII 1963 (Hepner), (INHS).

Distribution: Known only from the type locality in Tennessee.

Host plants: Unknown; the holotype was recorded from *Rhododendron* sp.

Notes: In the original publication Hepner (1987a) misspelled the host plant name as “*Rhodedendron* sp.” and proposed a new species name based on this misspelling. According to the Article 32.5.1 (ICZN, 1999) the spelling must be corrected as indicated above.

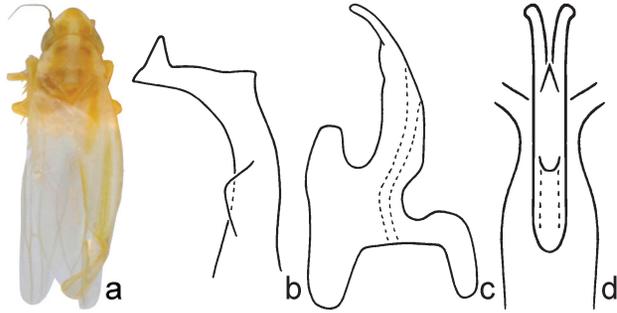


Figure 102. *E. rhododendronae* (Hepner). a – holotype.

103. *Erythridula verdana* (Ross & DeLong, 1953) (Fig. 103)

Erythronaura verdana Ross & DeLong, 1953a:81

Erythridula verdana Dietrich & Dmitriev, 2006a:131



Description: Length 3.3 mm. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, divergent only at apex; distal processes absent. Dorsum pale yellow, unicolorous, only apex of clavus bright red; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Tennessee, Blount Co., Great Smoky Mountain National Park, Alum Cave Area, 1 IX 1948 (Ross & Stannard), (INHS).

Distribution: Southeastern USA.

Host plants: Unknown.

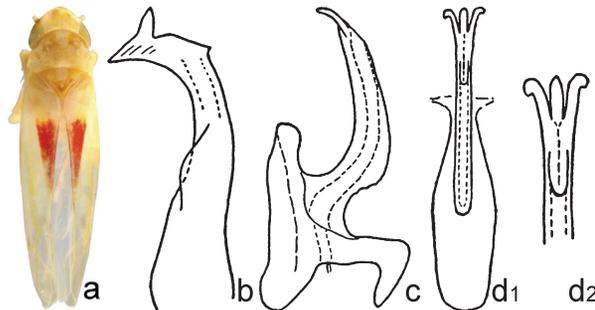
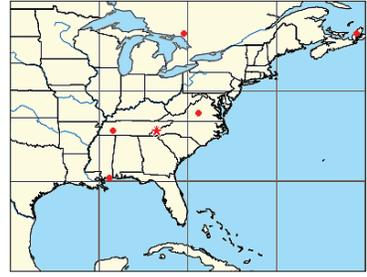


Figure 103. *E. verdana* (Ross & DeLong). a – holotype; b–d2 – from Ross & DeLong, 1953a.

104. *Erythridula victorialis* (Knull, 1946) (Fig. 104)*Erythroneura victorialis* Knull, 1946a:49*Erythroneura* (*Erythridula*) *victorialis* Young,
1952b:84*Erythroneura* (*Erythridula*) *floridoides* Hepner,
1978a:133, **syn.n.***Erythridula victorialis* Dietrich & Dmitriev,
2006a:131

Description: Length 3.1–3.4 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, divergent only at apex; distal processes absent. Dorsum pale yellow with bright red V-shaped color pattern on forewings; anteclypeus pale; notum pale; thoracic venter pale; forewings with oblique vittae more bright on clavus; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Tennessee, Sevier Co., Great Smoky Mountain National Park, 1500–1850 m, on *Vaccinium* sp., 14 VI 1942 (Knull), (OSU).

Distribution: Eastern USA, southeastern Canada.

Host plants: *Vaccinium* sp.

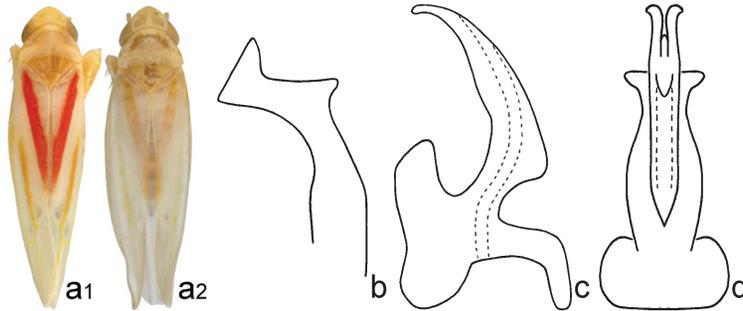
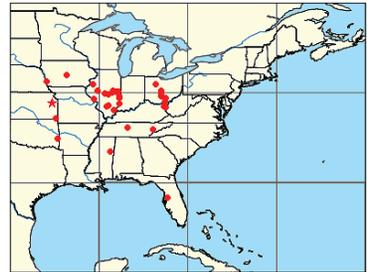


Figure 104. *E. victorialis* (Knull). a1, a2 – color variations.

105. *Erythridula aenea* (Beamer, 1930) (Fig. 105)*Erythroneura aenea* Beamer, 1930b:436*Erythroneura* (*Erythridula*) *aenea* Young, 1952b:82*Erythridula aenea* Dietrich & Dmitriev, 2006a:127

Description: Length 3.1–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in cross-section, without dorsal carina or distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, evenly divergent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).

Distribution: Central and southeastern USA.
Host plants: *Gleditsia triacanthos*.

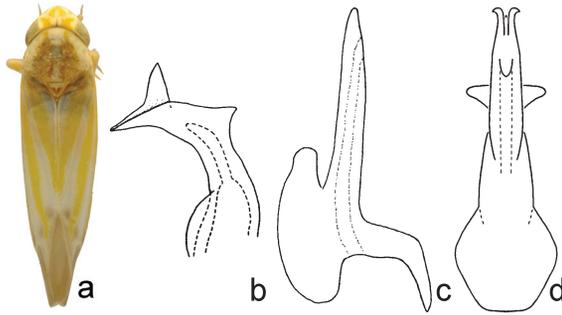
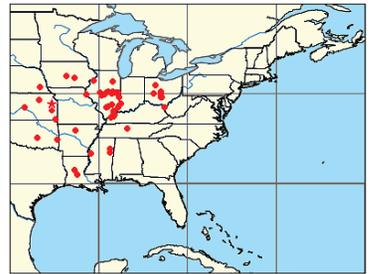


Figure 105. *E. aenea* (Beamer). b – from Young, 1952b.

106. *Erythridula diffisa* (Beamer, 1930) (Fig. 106, Plate 1a)
Erythroneura diffisa Beamer, 1930b:434
Erythroneura (Erythridula) diffisa Young, 1952b:83
Erythridula diffisa Dietrich & Dmitriev, 2006a:128



Description: Length 3.2–3.5 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points more than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in cross-section, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus brown; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).
Distribution: Central USA.
Host plants: *Gleditsia triacanthos*.

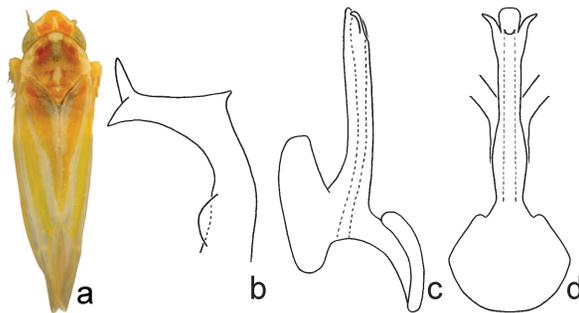


Figure 106. *E. diffisa* (Beamer).

107. *Erythroneura inconspicua* Johnson, 1935) (Fig. 107)*Erythroneura inconspicua* Johnson, 1935a:90*Erythroneura (Erythridula) inconspicua* Young,
1952b:83*Erythridula inconspicua* Dietrich & Dmitriev,
2006a:129

Description: Length 2.9–3.0 mm. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes arising near apex of shaft, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Fulton Co., Oak Openings Park, 24 VI 1934 (Auten), (OSU).

Distribution: Known from the type locality in Ohio.

Host plants: Unknown.

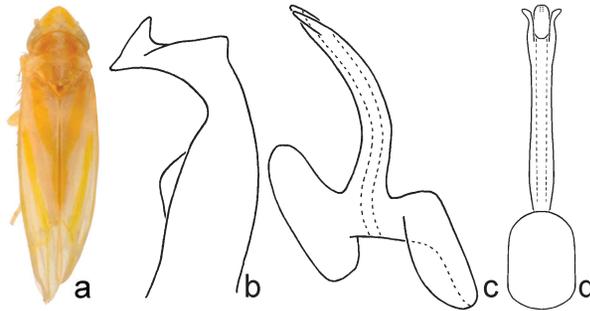
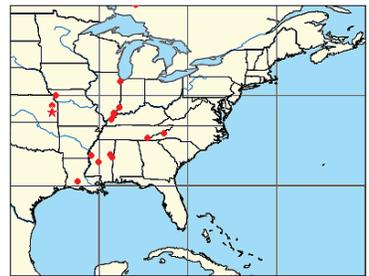


Figure 107. *E. inconspicua* (Johnson).

108. *Erythridula jocosa* (Beamer, 1935) (Fig. 108)*Erythroneura jocosa* Beamer, 1935a:101*Erythroneura (Erythridula) jocosa* Young, 1952b:83*Erythroneura (Erythridula) lyratiphylloides* Hepner,
1977b:55, **syn.n.***Erythroneura (Erythridula) quadratoides* Hepner,
1977b:51, **syn.n.***Erythroneura (Erythridula) quadritoides* Hepner,
1977b:50, missp.*Erythridula jocosa* Dietrich & Dmitriev, 2006a:129

Description: Length 3–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, depressed, without dorsal carina or distal lobe; aedeagal apex rounded in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Anderson Co., 9 IX 1927 (Beamer), (KSEM).

Distribution: Central and southeastern USA, southeastern Canada.

Host plants: *Quercus ellipsoidalis*, *Q. nigra*, *Q. lyrata*, and other species of *Quercus*.

Notes: *E. quadratoides* Hepner was described based on a specimen with broken ventral aedeagal processes.

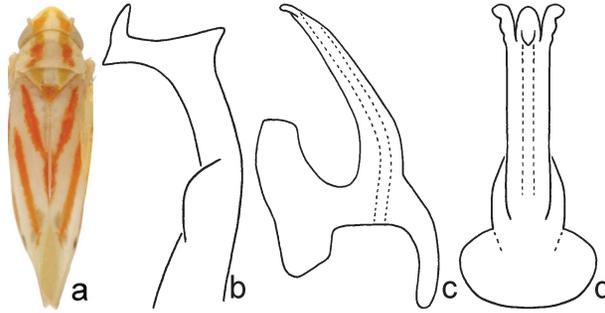


Figure 108. *E. jocosa* (Beamer).

109. *Erythridula cuneata* (Beamer, 1930) (Fig. 109)

Erythroneura cuneata Beamer, 1930b:433

Erythroneura stulta Auten & Johnson, 1936a:64,

syn.n.

Erythroneura (Erythridula) cuneata Young, 1952b:82

Erythridula cuneata Dietrich & Dmitriev, 2006a:128



Description: Length 3–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft. Aedeagal shaft curved dorsad, broad in lateral view, round in crosssection, with long compressed dorsal distal lobe; apex acuminate in ventral view; ventral processes absent; distal processes short, toothlike, apical, or absent. Coloration usual for genus; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Oklahoma, Le Flore Co., 21 V 1928 (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Diospyros virginiana*.

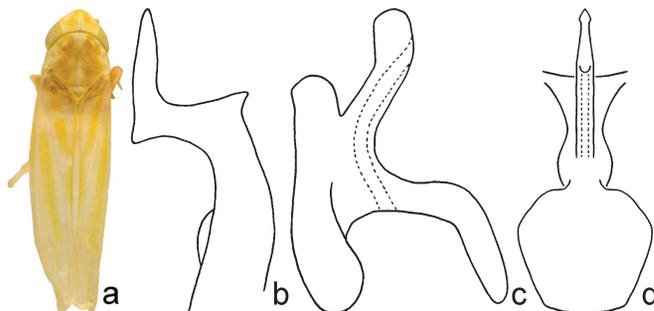
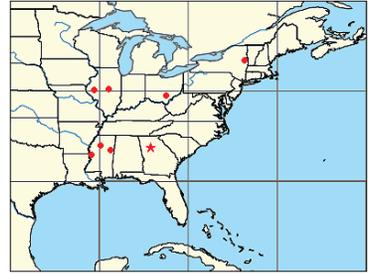


Figure 109. *E. cuneata* (Beamer).

110. *Erythridula scytha* (Auten & Johnson, 1936) (Fig. 110)

Erythroneura scytha Auten & Johnson, 1936a:61
Erythroneura (Erythridula) scytha Young, 1952b:84
Erythroneura (Erythridula) bowmanorum Hepner,
 1977c:362, **syn.n.**
Erythridula scytha Dietrich & Dmitriev, 2006a:130



Description: Length 2.9–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes placed basally, close to shaft, shorter than shaft, small toothlike; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Georgia, DeKalb Co., Decatur, 8 X 1933 (Auten), (OSU).

Distribution: Central and eastern USA.

Host plants: Unknown.

Notes: The holotype was collected on 8 X 1933, not on 8 V 1933 as stated in the original publication.

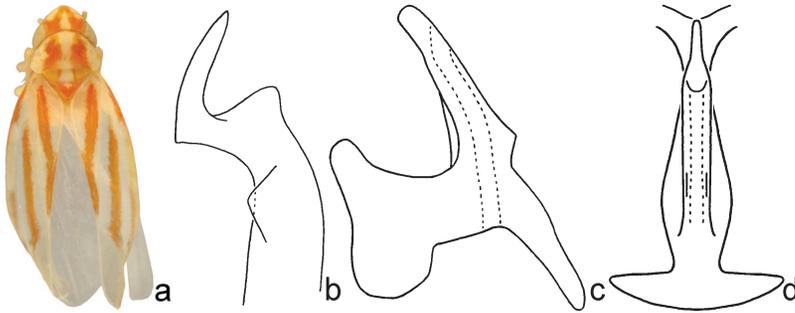
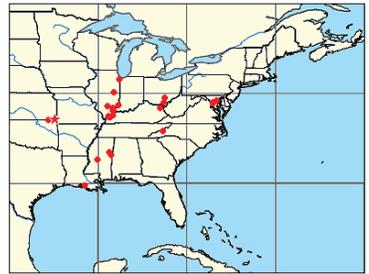


Figure 110. *E. scytha* (Auten & Johnson).

111. *Erythridula albescens* (Beamer, 1930) (Fig. 111)

Erythroneura albescens Beamer, 1930b:443
Erythroneura (Erythridula) albescens Young,
 1952b:82
Erythroneura (Erythridula) kennethi Hepner,
 1976c:298, **syn.n.**
Erythridula albescens Dietrich & Dmitriev,
 2006a:127



Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, small toothlike, or absent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter entirely pale or dark; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Cherokee Co., 1928, (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Quercus ellipsoidalis*, *Q. imbricaria*, *Q. palustris*, *Q. marilandica*, *Q. pagoda*.

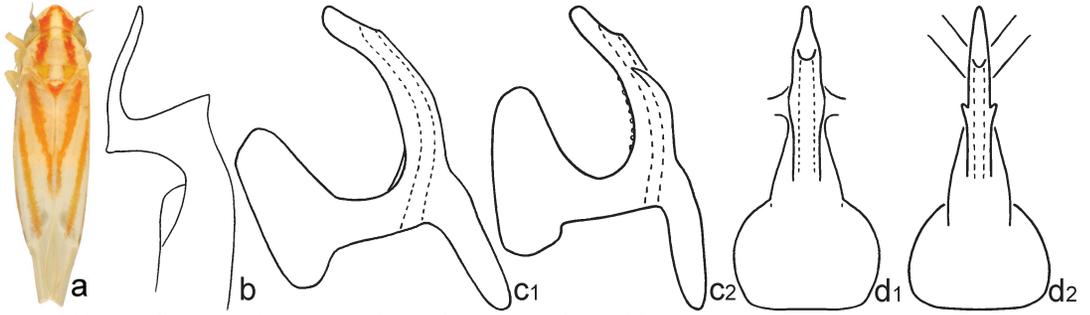


Figure 111. *E. albescens* (Beamer). c2, d2 – aedeagus of *E. kennethi* Hepner.

112. *Erythridula ampla* (Knull, 1951) (Fig. 112)

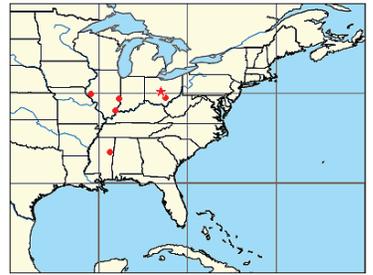
Erythroniura ampla Knull, 1951c:179

Erythroniura (Erythridula) ampla Young, 1952b:120

Erythroniura (Erythridula) clydei Hepner,

1977c:363, **syn.n.**

Erythridula ampla Dietrich & Dmitriev, 2006a:127



Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, tooth-like; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and broad in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral and distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Delaware Co., 25 III 1945 (Knull), (OSU).

Distribution: Central USA.

Host plants: *Carya cordiformis*.

Notes: The holotype of *E. clydei* Hepner has the aedeagal shaft more slender than usual in lateral view, but this variation is considered to be intraspecific.

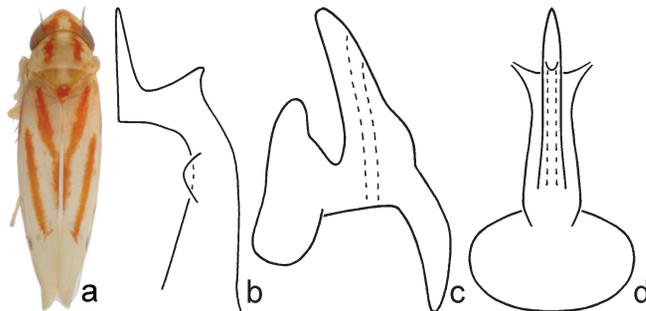
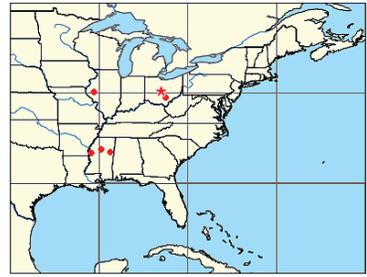


Figure 112. *E. ampla* (Knull).

113. *Erythridula freta* (Knull, 1951) (Fig. 113)*Erythroneura freta* Knull, 1951c:179*Erythroneura (Erythridula) freta* Young, 1952b:120*Erythroneura (Erythridula) clarysae* Hepner,
1976c:299, **syn.n.***Erythroneura (Erythridula) gladysae* Hepner,
1976d:315, **syn.n.***Erythroneura (Erythridula) odettae* Hepner,
1977c:362, **syn.n.***Erythridula freta* Dietrich & Dmitriev, 2006a:128

Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points less 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and broad in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near midlength of shaft, small toothlike, or absent; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Delaware Co., 25 III 1945 (Knull), (OSU).

Distribution: Central USA.

Host plants: Unknown.

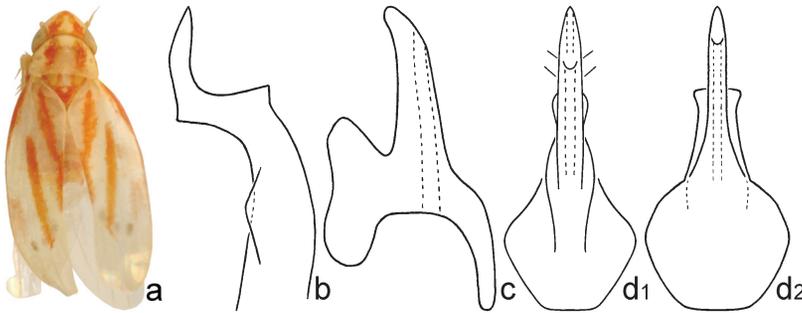


Figure 113. *E. freta* (Knull). d1, d2 – variation in shape of aedeagal shaft.

114. *Erythridula lasteri* (Hepner, 1977) (Fig. 114)*Erythroneura (Erythridula) lasteri* Hepner,
1977a:248*Erythridula lasteri* Dietrich & Dmitriev, 2006a:129

Description: Length 2.9–3 mm. Pygofer lobe rounded.

Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, lobelike; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Neotype ♂, USA, Mississippi, Madison Co., Canton, 29 I 1963 (Hepner), (INHS).

Distribution: Mississippi.

Host plants: *Quercus lyrata*.



Notes: All holotypes of the species described by Hepner (1977a) were apparently lost during shipment to INHS. The neotype is here designated to stabilize the concept of this species.

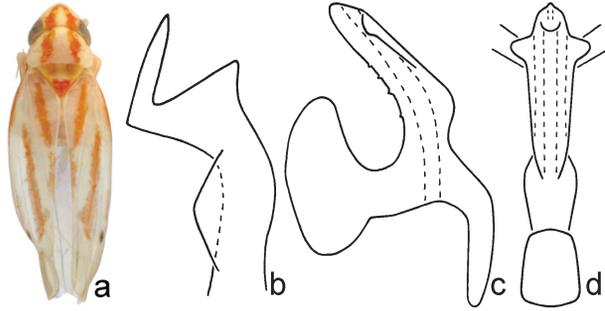


Figure 114. *E. lasteri* (Hepner).

115. *Erythridula enata* (Knull, 1951) (Fig. 115)

Erythroneura enata Knull, 1951c:179

Erythroneura (Erythridula) enata Young, 1952b:120

Erythroneura (Erythridula) hamlinorum Hepner, 1977c:362, **syn.n.**

Erythroneura (Erythridula) hildae Hepner, 1977c:362, **syn.n.**

Erythroneura (Erythridula) cliftoni Hepner, 1977c:363, **syn.n.**

Erythroneura (Erythridula) collinsi Hepner, 1977c:364, **syn.n.**

Erythroneura (Erythridula) shanklandi Hepner, 1978a:137, **syn.n.**

Erythridula enata Dietrich & Dmitriev, 2006a:128



Description: Length 3–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral processes arising near apex of shaft, small toothlike; distal processes short, toothlike, apical, or absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Ohio, Delaware Co., 25 III 1945 (Knull), (OSU).

Distribution: Central USA, southeastern Canada.

Host plants: *Carya tomentosa*, *Betula alleghaniensis*, *B. papyrifera*.

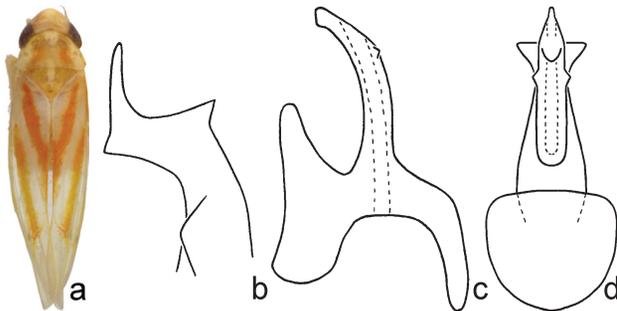
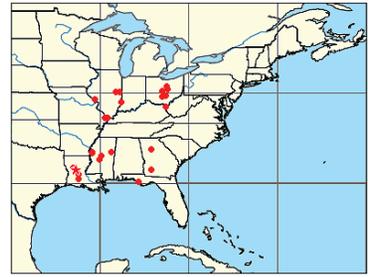


Figure 115. *E. enata* (Knull).

116. *Erythridula cauta* (Beamer, 1935) (Fig. 116)*Erythroneura cauta* Beamer, 1935a:100*Erythroneura alternata* Johnson, 1935a:72*Erythroneura (Erythridula) cauta* Young, 1952b:82*Erythridula cauta* Dietrich & Dmitriev, 2006a:127

Description: Length 2.9–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with long compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral and distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Louisiana, Grant Co., Colfax, 23 XII 1931 (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Carya illinoensis*.

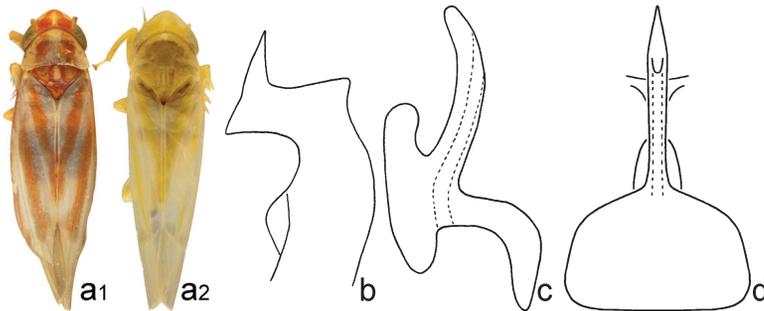


Figure 116. *E. cauta* (Beamer). a1, a2 – color pattern variations.

117. *Erythridula lyratae* (Ross & DeLong, 1953) (Fig. 117)*Erythroneura lyratae* Ross & DeLong, 1953a:83*Erythroneura (Erythridula) mcomasi* Hepner, 1978a:138, **syn.n.***Erythridula lyratae* Dietrich & Dmitriev, 2006a:129

Description: Length 2.9–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, depressed, without dorsal carina or distal lobe; aedeagal apex broadened in ventral view; ventral processes arising near apex of shaft, small toothlike; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., Grantsburg, on *Quercus lyrata*, 31 VIII 1951 (Richards & Ross), (INHS).

Distribution: Central USA.

Host plants: *Quercus lyrata*.

Notes: The holotype was collected on 31 VIII 1951, not on 17 VIII 1951 as stated in the original publication.

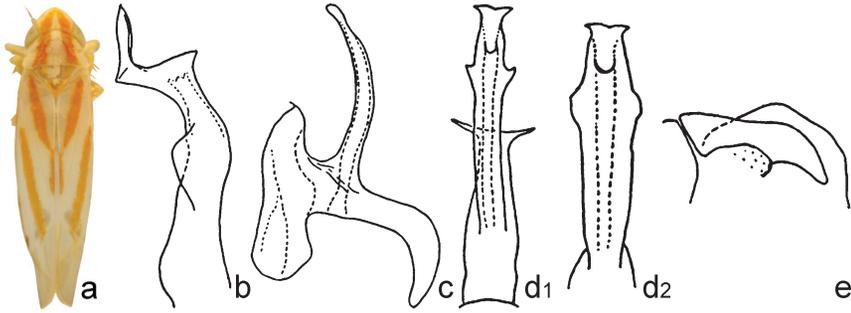


Figure 117. *E. lyratae* (Ross & DeLong). b–e – from Ross & DeLong, 1953a; d1, d2 – variation in shape of ventral processes of aedeagus.

118. *Erythridula rufostigmosa* (Beamer, 1930) (Fig. 118)

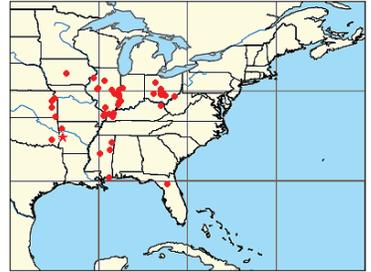
Erythroneura rufostigmosa Beamer, 1930b:429

Erythroneura rufostigmosa var. *subnubila* Beamer, 1930b:429, **syn.n.**

Erythroneura subnila Johnson, 1935a:52, missp.

Erythroneura (Erythridula) rufostigmosa Young, 1952b:84

Erythridula rufostigmosa Dietrich & Dmitriev, 2006a:130



Description: Length 2.9–3.1 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded; dorsal appendage with dorsal tooth or hump. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened and emarginate in ventral view; ventral processes absent; distal processes short, toothlike, apical. Dorsum yellowish with red and brown color pattern; vertex with oblique lateral vittae or with large basal dark area, often extended onto pronotum, vertex midline pale or dark; anteclypeus pale, concolorous with rest of face; pronotum dark with pale lateral margins; mesonotum entirely dark; thoracic venter with dark mesosternum, remainder pale. Forewings with oblique vittae, often fused together, or without oblique vittae; clavus largely or entirely bright red or brown; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Arkansas, Scott Co., on *Salix* sp., 24 VIII 1928 (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Salix babylonica*, *S. interior*, *S. nigra*, and other species of *Salix*.

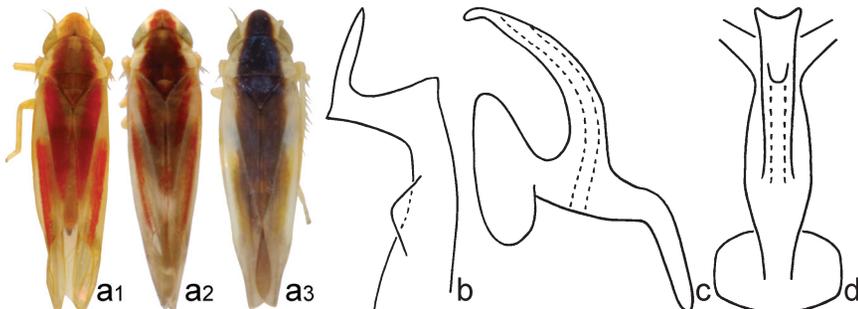
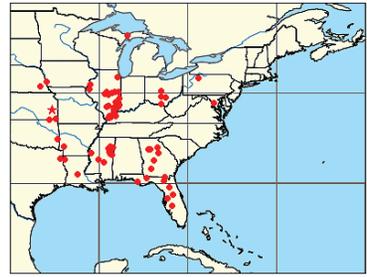


Figure 118. *E. rufostigmosa* (Beamer). a1–a3 – color variations: a1 – paratype, *E. rufostigmosa* Beamer, a2 – color var. *subnubila* Beamer.

119. *Erythridula volucris* (Beamer, 1930) (Fig. 119)*Erythroneura volucris* Beamer, 1930a:445*Erythroneura (Erythridula) volucris* Young,
1952b:84*Erythroneura tura* Ross & DeLong, 1953a:84, **syn.n.***Erythroneura (Erythridula) tomaneki* Hepner,
1977c:359, **syn.n.***Erythroneura (Erythridula) lauriphylla* Hepner,
1978a:134, **syn.n.***Erythroneura (Erythridula) penetura* Hepner,
1978a:135, **syn.n.***Erythroneura (Erythridula) turoides* Hepner, 1978a:135, **syn.n.***Erythridula volucris* Dietrich & Dmitriev, 2006a:131

Description: Length 2.9–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded; dorsal appendage with dorsal tooth or hump. Second point of style apex very short, toothlike; third point elongate, about as long as distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round or depressed, without dorsal carina or distal lobe; aedeagal apex broadened in ventral view; ventral processes arising near midlength or near apex of shaft, small toothlike, or absent; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Kansas, Anderson Co., 29 XI 1927 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Quercus phellos*, *Q. lyrata*, *Q. nigra*, *Q. chapmanii*, and other species of *Quercus*.

Notes: Multiple taxa described by Hepner and here treated as synonyms appear to have been based on intraspecific variation in the position and shape of the ventral and distal processes of the aedeagus.

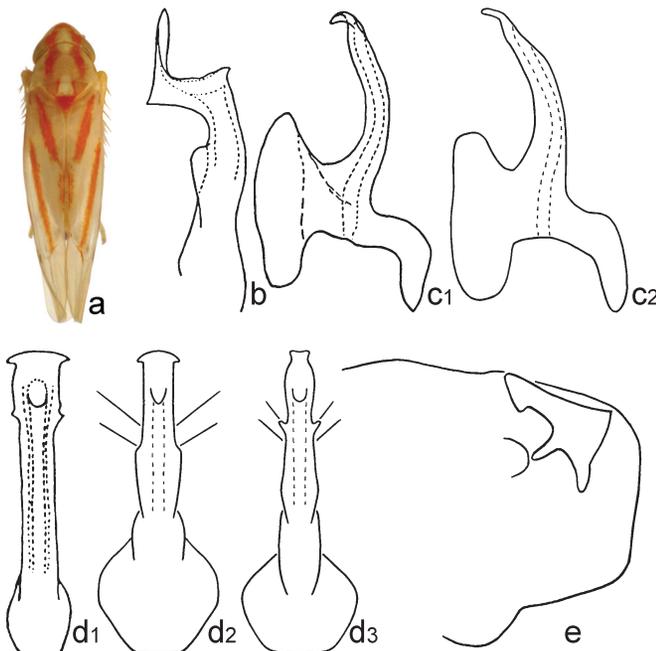


Figure 119. *E. volucris* (Beamer). b, c1, d1 – from Ross & DeLong, 1953a; d2 – aedeagus of *E. penetura* Hepner; d3 – paratype, *E. lauriphylla* Hepner.

120. *Erythridula similalis* (Ross & DeLong, 1953) (Fig. 120)
Erythroneura similalis Ross & DeLong, 1953a:82
Erythridula similalis Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–2.9 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex bifid in ventral view, compressed, without dorsal carina or distal lobe; aedeagal apex bifid in ventral view, compressed, without dorsal carina or distal lobe; aedeagal apex bifid in ventral view, compressed, without dorsal carina or distal lobe; dorsum yellow with redish and brownish color pattern; vertex with large basal dark area, extended onto pronotum; vertex midline dark; anteclypeus pale, concolorous with rest of face; pronotum dark with pale lateral margins; mesonotum entirely dark; thoracic venter pale; forewings with oblique vittae, clavus largely bright red or brown; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Florida, Levy Co., Chiefland, on *Quercus myrtifolia*, 17 XII 1949 (Stannard et. al.), (INHS).

Distribution: Northern Florida.

Host plants: *Quercus chapmanii*, *Q. myrtifolia*.

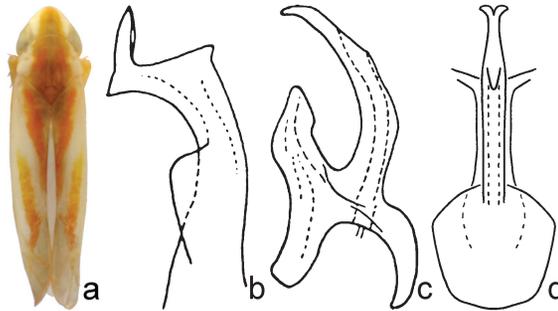
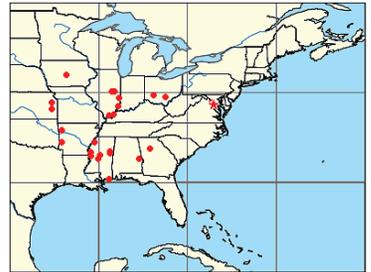


Figure 120. *E. similalis* (Ross & DeLong). b, c – from Ross & DeLong, 1953a.

121. *Erythridula abolla* (McAtee, 1920) (Fig. 121)
Erythroneura abolla McAtee, 1920a:285
Erythroneura abolla var. *iconica* McAtee, 1920a:287, **syn.n.**
Erythroneura abolla var. *accensa* McAtee, 1920a:288, **syn.n.**
Erythroneura (Erythridula) abolla Young, 1952b:82
Erythroneura (Erythridula) paramera Hepner, 1978a:137, **syn.n.**
Erythridula abolla Dietrich & Dmitriev, 2006a:127



Description: Length 2.8–3.2 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round or compressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes arising near midlength of shaft,

small toothlike; distal processes short, toothlike, apical. Dorsum usually brownish red with pale apices of forewings; anteclypeus pale; thoracic venter entirely pale or with dark mesosternum; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Virginia, Fairfax Co., Mt. Vernon, 28 II 1915 (Jackson), (USNM).

Distribution: Central and southeastern USA.

Host plants: Unknown.

Notes: The holotype is a male (not previously dissected), not a female as stated in the original publication.

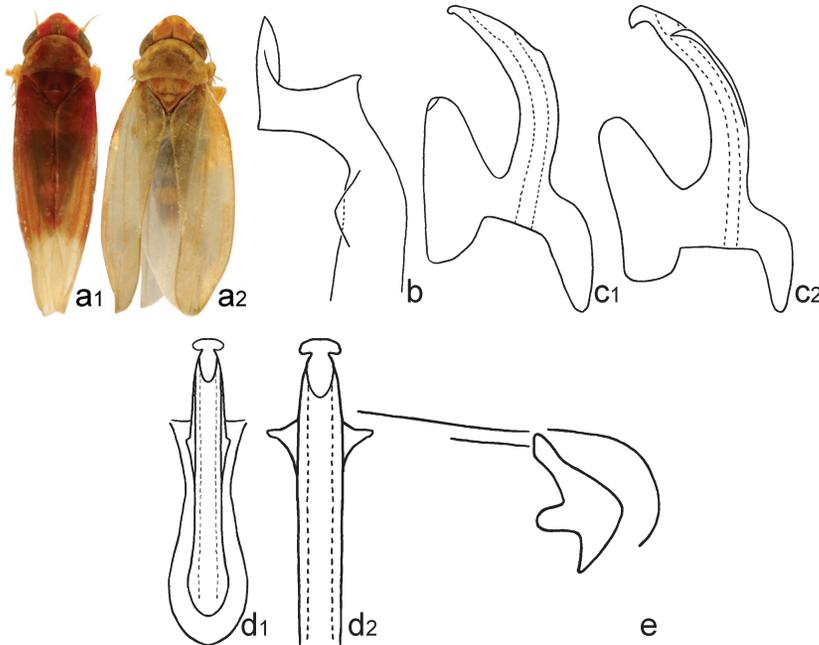


Figure 121. *E. abolla* (McAtee). a2 – holotype *E. iconica* McAtee; c1–d2 – variations in shape of ventral processes of aedeagus.

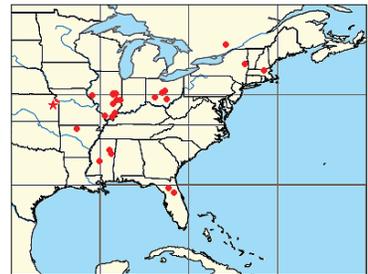
122. *Erythridula penelutea* (Beamer, 1930) (Fig. 122)

Erythroneura penelutea Beamer, 1930b:427

Erythroneura (Erythridula) penelutea Young,
1952b:83

Erythroneura (Erythridula) morelandi Hepner,
1976d:316, **syn.n.**

Erythridula penelutea Dietrich & Dmitriev,
2006a:130



Description: Length 2.7–2.9 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded.

Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; aedeagal shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes arising near midlength of shaft, small toothlike; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1 V 1926 (Beamer), (KSEM).

Distribution: Central and eastern USA, southeastern Canada.

Host plants: Unknown; collected on *Ilex decidua*, *Carpinus caroliniana*, *Carya* spp., *Quercus* spp.

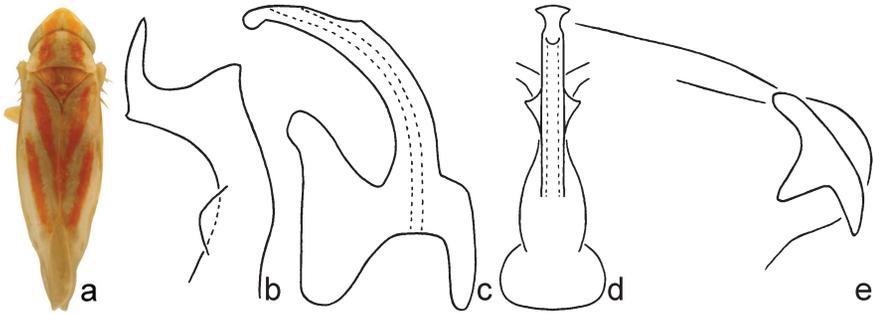


Figure 122. *E. penelutea* (Beamer).

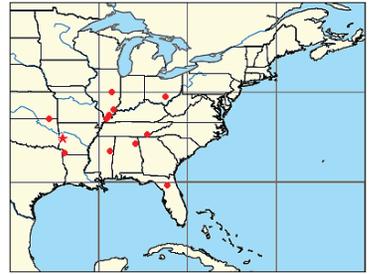
123. *Erythridula scissa* (Beamer, 1930) (Fig. 123)

Erythronera scissa Beamer, 1930b:448

Erythronera (*Erythridula*) *scissa* Young, 1952b:84

Erythronera (*Erythridula*) *hamiltoni* Hepner, 1977b:52, **syn.n.**

Erythridula scissa Dietrich & Dmitriev, 2006a:130



Description: Length 2.7–3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened and emarginate in ventral view; ventral processes arising near apex of shaft, small toothlike or absent; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Arkansas, Scott Co., 23 VIII 1928 (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: *Carpinus caroliniana*.

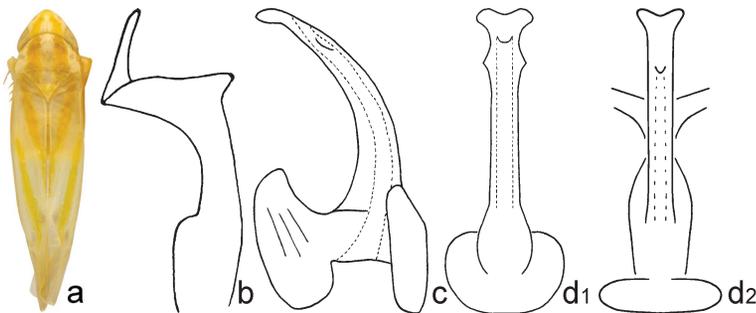


Figure 123. *E. scissa* (Beamer). d2 – aedeagus of *E. hamiltoni* Hepner.

124. *Erythridula eluta* (McAtee, 1920) (Fig. 124)

Erythroneura obliqua var. *eluta* McAtee,
1920a:277

Erythroneura eluta Beamer, 1930b:420

Erythroneura contrasta Auten & Johnson,
1936a:62, **syn.n.**

Erythroneura (Erythridula) eluta Young, 1952b:83

Erythroneura (Erythridula) carmiensis Hepner,
1976d:316, **syn.n.**

Erythroneura (Erythridula) davichi Hepner, 1977a:248, **syn.n.**

Erythroneura (Erythridula) mitlini Hepner, 1977a:250, **syn.n.**

Erythroneura (Erythridula) saileri Hepner, 1977a:253, **syn.n.**

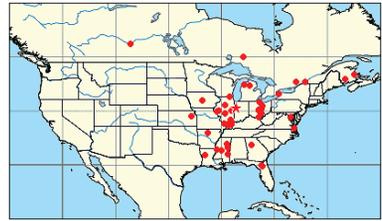
Erythroneura (Erythridula) coleyi Hepner, 1977a:254, **syn.n.**

Erythroneura (Erythridula) cuneatoides Hepner, 1977c:364, **syn.n.**

Erythroneura (Erythridula) pietersi Hepner, 1978a:137, **syn.n.**

Erythroneura (Erythridula) verae Hepner, 1978a:138, **syn.n.**

Erythridula eluta Dietrich & Dmitriev, 2006a:128



Description: Length 2.9–3.2 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex angulate in ventral view; ventral processes arising near midlength of shaft, small toothlike; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♀, USA, Indiana, Benton Co., Oxford, 1 XI 1914 (McAtee), (USNM).

Distribution: Central and eastern USA, southern Canada.

Host plants: *Carpinus* sp., *Carya cordiformis*, *C. ovata*, *C. ovalis*, *C. tomentosa*, *C. illinoensis*.

Notes: Multiple taxa described by Hepner and here treated as synonyms appear to represent intraspecific variation in the placement and shape of the ventral processes of the aedeagus. The holotypes of *E. coleyi* Hepner, *E. davichi* Hepner, *E. mitlini* Hepner, *E. saileri* Hepner are lost. The holotype of *E. contrasta* Auten & Johnson has the ventral processes of the aedeagus short, not long as described in the original publication.

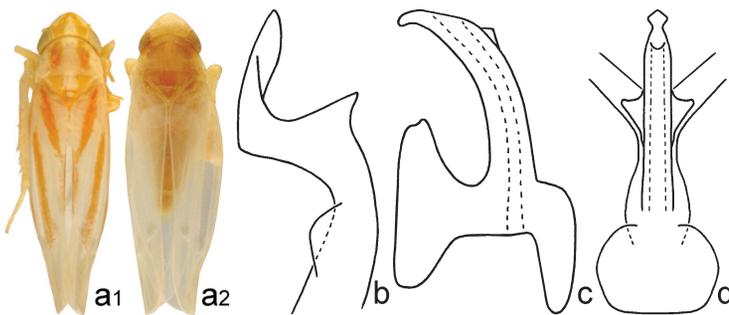


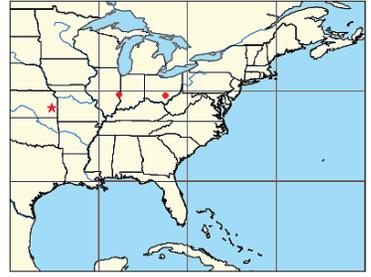
Figure 124. *E. eluta* (McAtee). a2 – holotype.

125. *Erythridula vinaria* (Beamer, 1930) (Fig. 125)

Erythronaura vinaria Beamer, 1930b:426

Erythronaura (*Erythridula*) *vinaria* Young, 1952b:84

Erythridula vinaria Dietrich & Dmitriev, 2006a:131



Description: Length 2.8–3 mm. 2S abdominal apodemes small, narrow, extended dorsomesad. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes arising near midlength of shaft, lobelike; distal processes short, toothlike, apical. Dorsum brownish red with darker color pattern; vertex with oblique lateral vittae, midline pale; anteclypeus brown; pronotum dark with pale lateral margins or pale with two longitudinal stripes; mesonotum entirely dark; thoracic venter entirely dark; forewings with oblique vittae, often fussed together; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Anderson Co., 26 XI 1927 (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Tilia americana*.

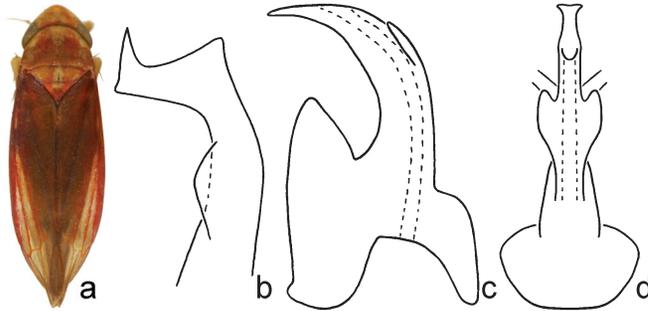


Figure 125. *E. vinaria* (Beamer).

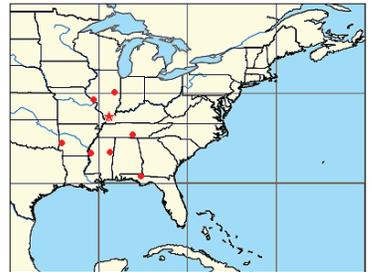
126. *Erythridula atrimucronata* (Beamer, 1930) (Fig. 126)

Erythronaura atrimucronata Beamer, 1930b:424

Erythronaura (*Erythridula*) *atrimucronata* Young, 1952b:82

Erythronaura (*Erythridula*) *leforsorum* Hepner, 1977c:360, **syn.n.**

Erythridula atrimucronata Dietrich & Dmitriev, 2006a:127



Description: Length 3.1–3.3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; shaft usually with lateral lobes, ventral processes arising near midlength of shaft, small toothlike; distal processes short, toothlike, apical. Dorsum reddish or brownish; vertex with large basal dark brown area, extended onto pronotum; anteclypeus pale, concolor-

ous with rest of face; pronotum dark with pale lateral margins; mesonotum entirely dark; thoracic venter pale; forewings almost entirely reddish brown with pale laterobasal corners; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Ilex decidua*.

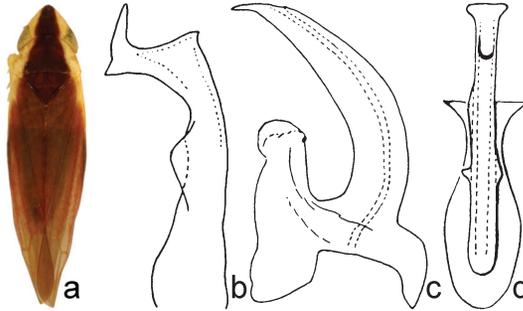


Figure 126. *E. atrimucronata* (Beamer). b-d – from Ross, 1953b.

127. *Erythridula coarctata* (Beamer, 1930) (Fig. 127)

Erythroneura coarctata Beamer, 1930b:436

Erythroneura (Erythridula) coarctata Young, 1952b:82

Erythroneura (Erythridula) barnesae Hepner, 1976d:313, **syn.n.**

Erythroneura (Erythridula) curtaega Hepner, 1976d:313, **syn.n.**

Erythroneura (Erythridula) maryae Hepner, 1976d:313, **syn.n.**

Erythridula coarctata Dietrich & Dmitriev, 2006a:127

Description: Length 2.8–3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point short; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Cherokee Co., 1927, (Beamer), (KSEM).

Distribution: Central and southeastern USA.

Host plants: Unknown.

Notes: The basal processes of the aedeagus of the holotype of *E. barnesae* Hepner arise at the apex of the shaft, not at the base as described in the original publication.

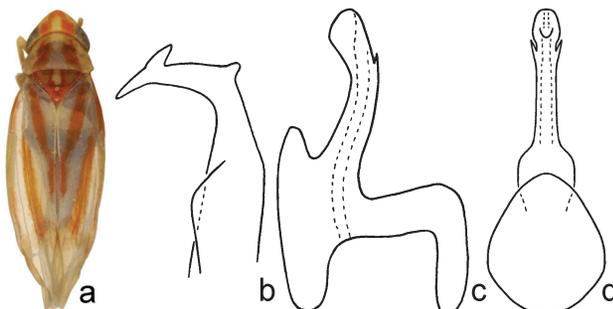
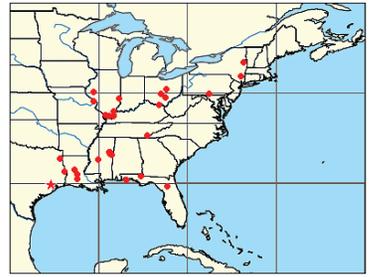


Figure 127. *E. coarctata* (Beamer).

128. *Erythridula modica* (Beamer, 1930) (Fig. 128, Plate 1h)
Erythroneura modica Beamer, 1930b:448
Erythroneura (Erythridula) modica Young, 1952b:83
Erythridula modica Dietrich & Dmitriev, 2006a:129



Description: Length 2.6–2.8 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round in cross-section, without dorsal carina or distal lobe; aedeagal apex emarginate in ventral view; ventral processes arising near apex of shaft, small toothlike; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Texas, Harris Co., 13 VIII 1928 (Beamer), (KSEM).

Distribution: Central and eastern USA.

Host plants: *Carpinus caroliniana*.

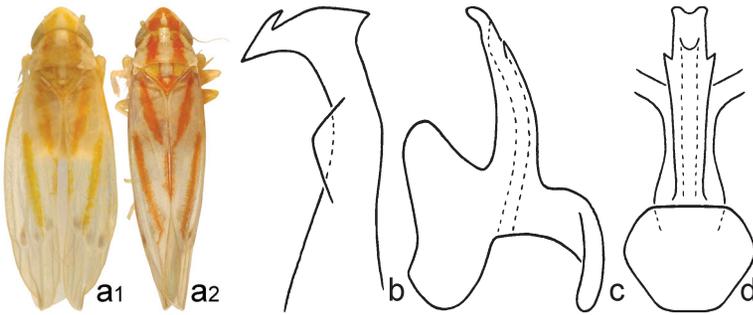
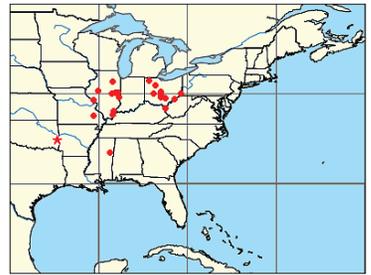


Figure 128. *E. modica* (Beamer). a1, a2 – color variations.

129. *Erythridula gleditsia* (Beamer, 1930) (Fig. 129)
Erythroneura gleditsia Beamer, 1930b:437
Erythroneura (Erythridula) gleditsia Young, 1952b:83
Erythroneura (Erythridula) clavatoides Hepner, 1978a:131, **syn.n.**
Erythridula gleditsia Dietrich & Dmitriev, 2006a:128

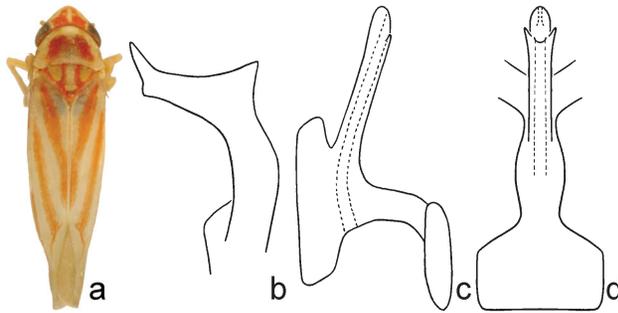


Description: Length 3.2–3.6 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex very short, toothlike; third point elongate, not longer than half distance between other two points; angle between basal and third points more than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in cross-section, with small compressed dorsal distal lobe; aedeagal apex rounded in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen dark dorsally.

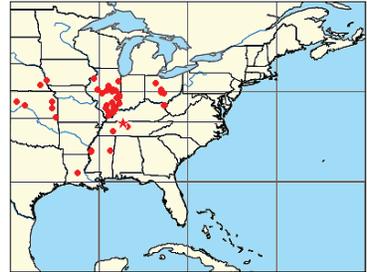
Type locality: Holotype ♂, USA, Oklahoma, Le Flore Co., 24 V 1928 (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Gleditsia triacanthos*, *Aesculus* sp.

Figure 129. *E. gleditsia* (Beamer).

130. *Erythridula clavata* (DeLong, 1916) (Fig. 130)
Typhlocyba obliqua var. *clavata* DeLong, 1916a:105
Erythroneura obliqua var. *clavata* Van Duzee,
 1917b:715
Erythroneura torra Robinson, 1924b:155
Erythroneura clavata Johnson, 1935a:52
Erythroneura (Erythridula) clavata Young, 1952b:82
Erythridula clavata Dietrich & Dmitriev, 2006a:127



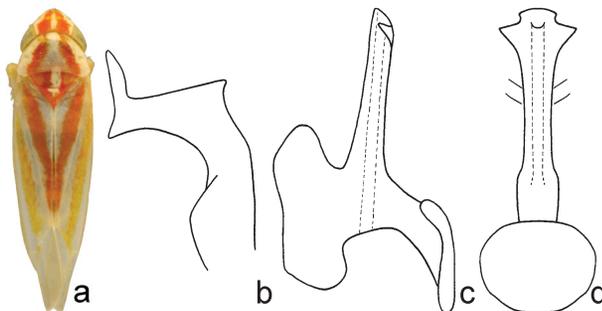
Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened and truncate in ventral view; ventral processes arising near apex of shaft, small tooth-like; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus brown; thoracic venter entirely pale or dark; forewings with oblique vittae, vittae on clavus usually brighter than those on corium; abdomen dark dorsally.

Type locality: Holotype, sex unknown, Tennessee, Montgomery Co., Clarksville, 29 VI 1915 (DeLong), (OSU).

Distribution: Central USA.

Host plants: *Gleditsia triacanthos*.

Notes: The holotype is lost.

Figure 130. *E. clavata* (DeLong).

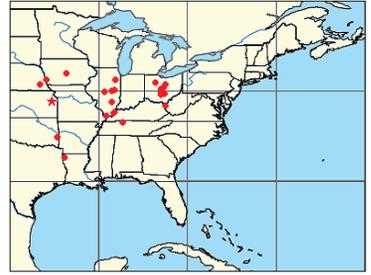
131. *Erythridula quadrata* (Beamer, 1930) (Fig. 131)

Erythreurea quadrata Beamer, 1930b:435

Erythreurea caldwelli Johnson, 1935a:69, **syn.n.**

Erythreurea (*Erythridula*) *quadrata* Young, 1952b:83

Erythridula quadrata Dietrich & Dmitriev, 2006a:130



Description: Length 3–3.3 mm. 2S abdominal apodemes large, broad, reach 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points more than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, round or depressed, without dorsal carina or distal lobe; aedeagal apex truncate in ventral view; ventral processes arising near apex of shaft, slightly divergent, appressed to sides of aedeagal shaft or small toothlike; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus brown; thoracic venter with dark mesosternum, remainder pale; abdomen dark dorsally.

Type locality: Holotype ♂, USA, Kansas, Douglas Co., 1927, (Beamer), (KSEM).

Distribution: Central USA.

Host plants: *Gleditsia triacanthos*.

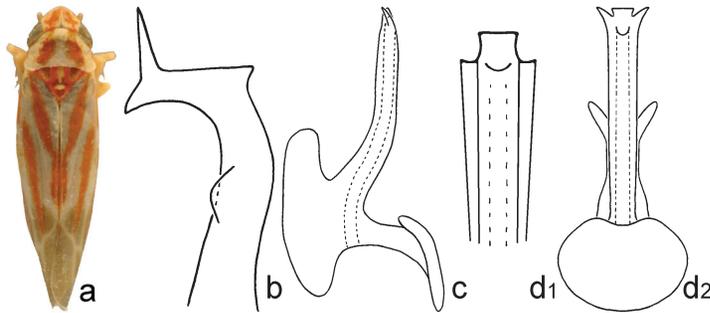


Figure 131. *E. quadrata* (Beamer). d2 – paratype, *E. caldwelli* Johnson.

132. *Erythridula juncea* (Beamer, 1937) (Fig. 132)

Erythreurea juncea Beamer, 1937a:10

Erythreurea (*Erythridula*) *juncea* Young, 1952b:83

Erythridula juncea Dietrich & Dmitriev, 2006a:129



Description: Length 2.8–2.9 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, slender in lateral view, compressed, with small compressed dorsal lobe; aedeagal apex truncate in ventral view; ventral and distal processes absent. Dorsum yellow, with reddish color pattern; vertex with large basal dark area, extended onto pronotum, midline dark; anteclypeus pale, concolorous with rest of face; pronotum pale with two longitudinal stripes; mesonotum entirely dark; thoracic venter pale; forewings with oblique vittae, vittae on clavus brighter than those on corium; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Florida, Likely, on *Quercus* sp., 24 VII 1934 (Beamer), (KSEM).

Distribution: Florida.

Host plants: *Quercus* sp.

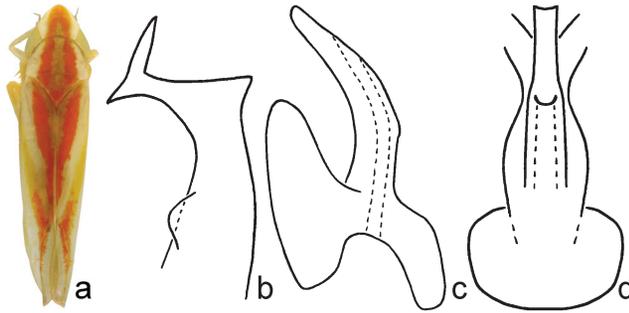


Figure 132. *E. juncea* (Beamer).

133. *Erythridula apta* (Beamer, 1935) (Fig. 133)

Erythroneura apta Beamer, 1935a:102

Erythroneura (Erythridula) apta Young, 1952b:82

Erythridula apta Dietrich & Dmitriev, 2006a:127

Description: Length 2.4–2.6 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex longer than third; third point very short; angle between basal and third points less than 90°. Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft straight and slender in lateral view, round in crosssection, with small compressed dorsal distal lobe; aedeagal apex acuminate in ventral view; ventral and distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Louisiana, Grant Co., Colfax, 23 XII 1931 (Beamer), (KSEM).

Distribution: Unknown.

Host plants: Southern central USA.

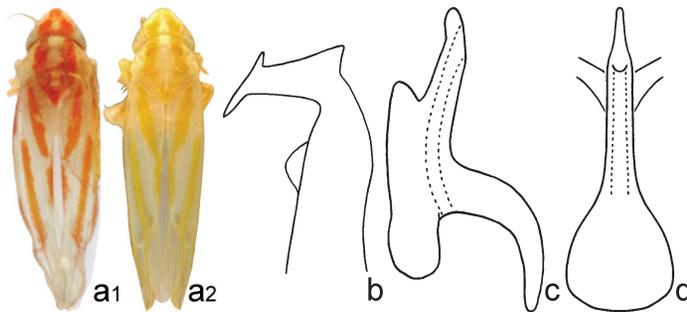


Figure 133. *E. apta* (Beamer). a1, a2 – color variations.

134. *Erythridula nava* (Beamer, 1935) (Fig. 134)

Erythroneura nava Beamer, 1935a:102

Erythroneura (Erythridula) nava Young, 1952b:83

Erythridula nava Dietrich & Dmitriev, 2006a:129

Description: Length 2.4–2.5 mm. Pygofer lobe rounded. Second point of style apex well developed. Third point elongate, not longer than half distance between other two points. Angle between basal and third points less than 90°. Dorsal apodeme



of aedeagus with distinct V-shaped ligaments; preatrium shorter than shaft; shaft curved dorsad, broad in lateral view, compressed, without dorsal carina or distal lobe; aedeagal apex broadened and rounded in ventral view; ventral processes absent; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Illinois, Johnson Co., 30 III 1929 (Oman), (KSEM).

Distribution: Central and southeastern USA.

Host plants: Unknown.

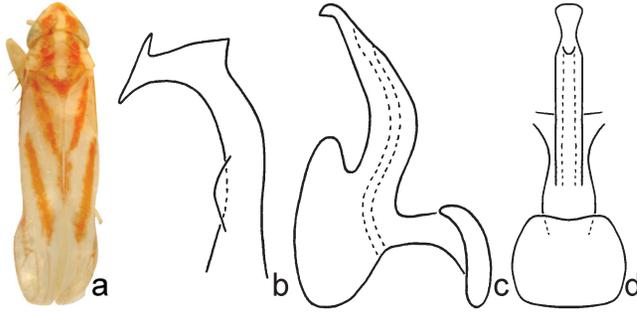


Figure 134. *E. nava* (Beamer).

135. *Erythridula barbarae* (Hepner, 1978) (Fig. 135)

Erythroneura (*Erythridula*) *barbarae* Hepner, 1978a:134

Erythridula barbarae Dietrich & Dmitriev, 2006a:127



Description: Length 2.7 mm. 2S abdominal apodemes large, broad, extended beyond 3S posterior margin. Pygofer lobe rounded. Second point of style apex well developed; third point elongate, not longer than half distance between other two points; angle between basal and third points about 90°.

Dorsal apodeme of aedeagus with distinct V-shaped ligaments; preatrium about as long as shaft; shaft straight and slender in lateral view, round in crosssection, without dorsal carina or distal lobe; aedeagal apex broadened and rounded in ventral view; ventral processes absent; distal processes short, toothlike, apical. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally.

Type locality: Holotype ♂, USA, Georgia, Dougherty Co., Albany, on *Prunus* sp., 15 VI 1963 (Hepner), (INHS).

Distribution: Known from the type locality in Georgia.

Host plants: Unknown.

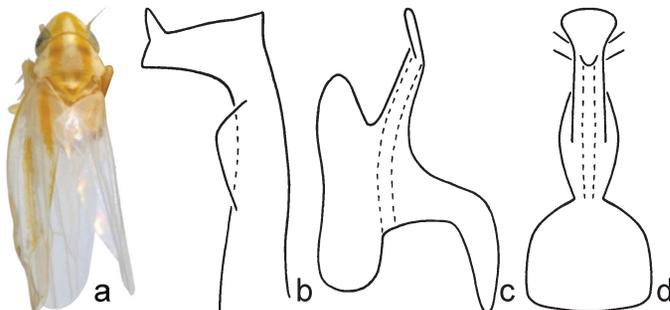


Figure 135. *E. barbarae* (Hepner). a – holotype.

Genus *Alnetoidia* Dlabola, 1958c:55

Alnetoidia alneti (Dahlbom, 1850a:181)

Erythroneura ador McAtee,

1918b:361, **syn.n.**

Erythroneura (Erythridula) ador

Young, 1952b: 82

Erythridula ador Dietrich & Dmitriev,
2006a: 127

Notes: *E. ador* McAtee was previously placed to *Erythridula* (Young, 1952b, Dietrich & Dmitriev, 2006a). The holotype of *E. ador* McAtee was destroyed by fire in the collection of the Nova Scotia Department of Agriculture; a paratype ♀ from USNM was studied and proved to be a junior synonym of *A. alneti* Dahlbom. This introduced species is still restricted in North America to Halifax, NS, the type locality of *E. ador* McAtee (Hamilton, personal communication).

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REFERENCES

- Ackerman, A.J., Isely, D. 1931a. The leaf hoppers attacking apple in the Ozarks. Tech. Bull. U.S. Dept. Agr. 263:40.
- Auten, M., Johnson, D.M. 1936a. Some *Erythroneura* of the *obliqua* group from Decatur, Georgia (Homoptera, Cicadellidae). Ann. Entomol. Soc. America 29:61–65.
- Baker, C.F. 1925b. Nomenclatorial notes on the Jassoidea, IV. Philippine J. Sci. 27:537.
- Baker, C.F. 1926a. Nomenclatorial notes on the Jassoidea, V. Philippine J. Sci. 30:347.
- Beamer, R.H. 1930a. Two *Erythroneura* (grape leaf hoppers) damaging apple in Kansas. J. Kansas Entomol. Soc. 3(2): 49–50.
- Beamer, R.H. 1930b. Some *Erythroneura* of the *obliqua* group (Homoptera, Cicadellidae). Ann. Entomol. Soc. America 23: 417–456.
- Beamer, R.H. 1932b. *Erythroneura* collected on apple with description of a new species. J. Kansas Entomol. Soc. 5(2): 62–64.
- Beamer, R.H. 1932i. Some *Erythroneura* from the Western United States (Homoptera, Cicadellidae). J. Kansas Entomol. Soc. 5(4):123–127.
- Beamer, R.H. 1934b. Notes on leafhoppers (Homoptera, Cicadellidae). Canadian Entomologist 66:16–18.
- Beamer, R.H. 1934d. Two *Erythroneura* (Homoptera, Cicadellidae). J. Kansas Entomol. Soc. 7:96–97.
- Beamer, R.H. 1935a. Ten new species of *Erythroneura* (Homoptera, Cicadellidae). J. Kansas Entomol. Soc. 8(3):98–104.
- Beamer, R.H. 1937a. Five new species of leafhoppers (Homoptera – Cicadellidae). J. Kansas Entomol. Soc. 10(1):10–13.
- Beamer, R.H. 1939a. Four new species of leafhoppers and notes on two others (Homoptera, Cicadellidae). J. Kansas Entomol. Soc. 12(1):26–30.
- Beamer, R.H., Griffith, M.E. 1935a. New *Erythroneura* of the *obliqua* group (Homoptera, Cicadellidae). J. Kansas Entomol. Soc. 8(1):17–21.
- Brimley, C.S. 1938a. Order Homoptera. The insects of North Carolina. Being a list of the insects of North Carolina and their close relatives. P. 85–103.
- Dahlbom, A.G. 1850a. Anteckningar öfver in sekter, som blifvit observerade på Gottland och I en del af Calmare Län, under sommaren 1850. Svenska Vetensk. Akad. Handl. 1850: 155–229 (179–204).
- DeLong, D.M. 1916a. The leafhoppers or Jassoidea of Tennessee. Bull. Tennessee St. Board Entomol. 5(2:17):1–113.
- DeLong, D.M., Caldwell, J.S. 1937c. Checklist of the Cicadellidae (Homoptera) of America, north of Mexico. Ohio: State University. IV+93 pp.
- DeLong, D.M., and D.J. Knull. 1946a. Checklist of the Cicadellidae (Homoptera) of America, north of Mexico. Grad. School Stud. Ohio State Univ. Biol. Sci. Ser. 1:1–102.
- Dietrich, C.H., Dmitriev, D.A. 2006a. Review of the New World genera of the leafhopper tribe Erythroneurini (Hemiptera: Cicadellidae: Typhlocybinae). Bull. Illinois Natur. Hist. Surv. 37(5):I–IV +119–190.
- Dlabola, J. 1958c. A reclassification of Palaearctic Typhlocybinae (Homopt., Auchenorrh.). Casopsis Ceskoslovenske Spolecnosti Entomologicke 55: 44–57.
- Dmitriev, D.A. 2006a. 3I, a new program for creating Internet-accessible interactive keys and taxonomic databases and its application for taxonomy of Cicadina (Homoptera). Rus. Entomol. J. 15(3): 263–268.
- Dmitriev, D.A., Dietrich, C.H. 2003 onward. Web site: Erythroneurini database. [Http://ctap.inhs.uiuc.edu/dmitriev/](http://ctap.inhs.uiuc.edu/dmitriev/)
- Dmitriev, D.A., Dietrich, C.H. 2008a. Rapid taxonomic revisions using Internet-integrated relational databases: an example using *Erythroneura* (sensu lato). Bull. Insectology 61(1):113–114.
- Dworakowska, I. 1970g. On the genus *Arboridia* Zachv. (Auchenorrhyncha, Cicadellidae, Typhlocybinae). Bull. Acad. Polonaise Sci. (Biol.). 18(10): 607–615.

- Fitch, A. 1851a. Catalogue with references and descriptions of the insects collected and arranged for the State Cabinet of Natural History. Ann. Rpt. State Cab. Natur. Hist.4: 43–69.
- Gillette, C.P. 1898a. American leaf-hoppers of the subfamily Typhlocybinae. Proc. U.S. Nat. Mus. 20(1138):709–773.
- Gillette, C.P. 1898c. List of original types of species in the superfamily Jassoidea now in the collections of the Colorado Agricultural College and Agricultural Experiment Station. Bull. Colorado Arg. Expt. Sta. 43:30–31.
- Hepner, L.W. 1976a. Thirteen new species of *Erythroneura* (*Erythridula*) (Homoptera: Cicadellidae). J. Kansas Entomol. Soc. 49(2):204–211.
- Hepner, L.W. 1976b. Sixteen new species of *Erythroneura* (*Erythridula*) from Eastern North America (Homoptera, Cicadellidae). III. J. Georgia Entomol. Soc. 11(2):119–126.
- Hepner, L.W. 1976c. Fifteen new species of *Erythroneura* (*Erythridula*) (Homoptera, Cicadellidae). II. Florida Entomologist 59(3):293–300.
- Hepner, L.W. 1976d. Seventeen new species of *Erythroneura* (*Erythridula*) (Homoptera, Cicadellidae). VI. J. Georgia Entomol. Soc. 11(4):309–316.
- Hepner, L.W. 1977a. Fourteen new species of *Erythroneura* (*Erythridula*) (Homoptera: Cicadellidae). IV. J. Kansas Entomol. Soc. 50(2):247–255.
- Hepner, L.W. 1977b. Fourteen new species of *Erythroneura* (*Erythridula*) (Homoptera: Cicadellidae). V. Florida Entomologist 60(1):49–56.
- Hepner, L.W. 1977c. Fifteen new species of *Erythroneura* (*Erythridula*) (Homoptera, Cicadellidae). VIII. J. Georgia Entomol. Soc. 12(4):359–365.
- Hepner, L.W. 1978a. Sixteen new species of *Erythroneura* (*Erythridula*) (Homoptera, Cicadellidae). VII. J. Kansas Entomol. Soc. 51(1):131–139.
- Horváth, G. 1897b. Homoptera nova ex Hungaria. Term. Füzetek 20:620–643.
- [ICZN] (1999). International code of zoological nomenclature. London: Intern. Trust Zool. Nomenclature. 4th ed. XXIX + 306 pp.
- Johnson, D.M. 1935a. Leafhoppers of Ohio. Subfamily Typhlocybinae (Homoptera: Cicadellidae). Bull. Ohio Biol. Surv. 31:39–122.
- Johnson, D., Auten, M. 1936a. Omissions and errors. Ann. Entomol. Soc. America. 34(4):818.
- Knull, D.J. 1945b. Eleven new leafhoppers with notes on others (Homoptera: Cicadellidae). Ohio J. Sci. 45(3):103–110.
- Knull, D.J. 1946a. *Erythroneura* of the *obliqua* group from Ohio and Tennessee (Homoptera: Cicadellidae). Ohio J. Sci. 46(1):45–49.
- Knull, D.J. 1951a. Additions to list of Ohio leafhoppers (Homoptera: Cicadellidae). Ohio J. Sci. 51:16.
- Knull, D.J. 1951c. Eight new leafhoppers from the United States (Homoptera: Cicadellidae). Ohio J. Sci. 51(4):179–183.
- Knull, D.J. 1954d. A *Frigartus* from California and an *Erythroneura* from South Dakota (Homoptera: Cicadellidae). Entomol. News. 65(2):37–39.
- Knull, D.J., Auten, M. 1938a. Some *Erythroneura* from the Southwest (Homoptera: Cicadellidae). Ann. Entomol. Soc. America. 31:532–539.
- Lawson, P.B. 1920a. The Cicadellidae of Kansas. Sci. Bull. Kansas Univ. 12: 5–306.
- Lawson, P.B. 1929a. Leafhoppers and the trap light. J. Kans. Entomol. Soc. 2:39–47.
- Maw, H.E.L. et al. 2000a. Checklist of the Hemiptera of Canada and Alaska. Ottawa: NRC research press, VIII + 220 pp.
- McAtee W.L. 1918b. Notes on Nova Scotian Eupteryid leafhoppers including descriptions of two new species. Canad. Entom. 50:360–361.
- McAtee, W.L. 1920a. Key to the Nearctic species and varieties of *Erythroneura* (Homoptera; Eupterygidae). Trans. American Entomol. Soc. 46:267–321, pl. XII.
- McAtee, W.L. 1924c. Notes on eupterygid leafhoppers with descriptions of a few forms (Homoptera). Florida Entomologist 8(3–4):33–39.

- McAtee, W.L. 1924d. Records of species of the genus *Erythroneura* (Homoptera; Eupterygidae) with descriptions of new forms. Proc. Biol. Soc. Washington 37:131–134.
- McAtee, W.L. 1926c. Notes on Homoptera from Illinois, with descriptions of new forms, chiefly Eupteryginae. Bull. Illinois Natur. Hist. Surv. 16(3):127–136.
- McConnell H.S., 1931a. A leafhopper injuring peach. J. Econ. Entomol. 24:560–561.
- Medler, J.T. 1943a. The leafhoppers of Minnesota. Homoptera: Cicadellidae. Tech. Bull. Minnesota. Agr. Expt. Sta. 155: 196.
- Metcalf, Z.P. 1968a. General catalogue of the Homoptera. VI. Cicadelloidea. 17. Cicadellidae. Washington: US Dept. Agr. VII + 1513 pp.
- Naudé, T.J. 1926a. Cicadellidae of South Africa, a taxonomic and faunistic study. Ent. Mem. Union So. Africa Dept. Agr. and Forestry.4:1–106.
- Osborn, H. 1905d. Report of progress on study of the Hemiptera of Ohio and description of new species. Ohio Nat. 5:273–276.
- Richards, W.R., Varty, I.W. 1964a. A new species of *Erythroneura* Fitch (Homoptera: Cicadellidae). Canadian Entomologist 96(3):515–516.
- Robinson, W. 1924a. Some new species of *Erythroneura* (Homoptera, Cicadellidae). Canadian Entomologist 56(3):58–62.
- Robinson, W. 1924b. Additional new species of *Erythroneura* (Homoptera, Cicadellidae). Canadian Entomologist 56:154–157.
- Robinson, W. 1924d. A correction. Canadian Entomologist 56:220.
- Robinson, W. 1926a. The genus *Erythroneura* north of Mexico (Homoptera, Cicadellidae). Kansas. Univ. Sci. Bull. 16(3): 101–155.
- Ross, H.H. 1953b. Polyphyletic origin of the leafhopper fauna of *Ilex decidua*. Trans. Illinois Acad. Sci. 16:186–192.
- Ross, H.H. 1965a. The phylogeny of the leafhopper genus *Erythroneura* (Hemiptera, Cicadellidae). Zool. Beitrage 11(1–2):247–270.
- Ross, H.H., DeLong, D.M. 1953a. Biological and taxonomic notes on *Erythroneura* (Homoptera, Cicadellidae). Ohio J. Sci. 53(2):77–90.
- Say, T. 1825a. Descriptions of new Hemipterous insects collected in the expedition to the Rocky Mountains, performed by order of Mr. Calhoun, Secretary of War, under command of Major Long. J. Acad. Natur. Sci. Philadelphia 4:307–345.
- Van Duzee, E.P. 1914a. A preliminary list of the Hemiptera of San Diego County, California. Trans. San Diego Soc. Natur. Hist. 2:1–57.
- Van Duzee, E.P. 1916a. Suborder Homoptera Latr. 1810. Section Auchenorrhyncha A. & S. 1843. Check list of Hemiptera (excepting the Aphididae, Aleurodidae, and Coccidae) of America North of Mexico. 1916:1–XI, 55–85.
- Van Duzee, E.P. 1917b. Catalogue of the Hemiptera of America North of Mexico excepting the Aphididae, Coccidae, and Aleurodidae. Entomol. Tech. Bull. California Agr. Expt. Sta. 2:I–XIV, 1–902.
- Wirtner, P.M. 1904a. A preliminary list of the Hemiptera of western Pennsylvania. Ann. Carnegie Mus. 3:183–232.
- Young, D.A. 1952b. A reclassification of Western Hemisphere Typhlocybinae (Homoptera, Cicadellidae). Univ. Kansas Sci. Bull. 35(1:1):3–217.

APPENDIX I

Collections and Studied Material²

#	Species	Museums						
		INHS	OSU	KSEM	MEM	CNC	USNM	CSUC
1	<i>E. lawsoniana</i> (Baker)	131	140	101	80	26		11
2	<i>E. electa</i> (McAtee)	82	27	39	13	20	1	5
3	<i>E. sagittata</i> (Beamer)	9		83	24			
4	<i>E. complicata</i> (Johnson)		12		1			
5	<i>E. bitincta</i> (McAtee)	22	94	4	10	15		
6	<i>E. crataegi</i> (Johnson)		127	3	2			
7	<i>E. intricata</i> (Johnson)		6		1			
8	<i>E. canadensis</i> sp.n.			2				
9	<i>E. occidua</i> (Beamer & Griffith)			75				
10	<i>E. dolosa</i> (Beamer & Griffith)	11		172	9	6		
11	<i>E. anomala</i> (Knull)		3					
12	<i>E. mansueta</i> (Beamer)	37	16	6	49			
13	<i>E. celebrata</i> (Johnson)		11					
14	<i>E. brundusa</i> (Robinson)	68	80	45	7	4		
15	<i>E. whitti</i> (Hepner)	1		1	2			
16	<i>E. rubrotincta</i> (Johnson)	2	49	2	1			
17	<i>E. tridens</i> (Beamer)	5	39	9	13	8		
18	<i>E. juglandis</i> (Knull & Auten)		142	81				
19	<i>E. divisa</i> (McAtee)	21			2		1	
20	<i>E. lloydi</i> (Hepner)	1			8			
21	<i>E. morrisi</i> (Hepner)	1			3			
22	<i>E. cruciformis</i> (Beamer)	24	49	41	102			
23	<i>E. pfrimmeri</i> (Hepner)	2			9			
24	<i>E. autenae</i> (Johnson)	2	27		3	1		
25	<i>E. martini</i> (Hepner)	2			1			
26	<i>E. tolerata</i> (Knull)		3		1			
27	<i>E. dunnii</i> (Hepner)	1			1			
28	<i>E. parsonsi</i> (Hepner)	42		1	63			
29	<i>E. afflicta</i> (Beamer)			6				
30	<i>E. noeva</i> (Gillette)	146	155	23	31	15	3	3
31	<i>E. nondescripta</i> (Johnson)	1	12	1				
32	<i>E. infinita</i> (Beamer)	25	24	20	4	13		
33	<i>E. spearca</i> (Johnson & Auten)	4	5		2			
34	<i>E. aesculella</i> (Ross & DeLong)	37	1		7			
35	<i>E. perita</i> (Beamer)	8	15	8	3	4		
36	<i>E. haspata</i> (Ross & DeLong)	2	1					
37	<i>E. wysongi</i> (Ross & DeLong)	4	12					
38	<i>E. torva</i> (Beamer)	1	4	6				
39	<i>E. rubens</i> (Beamer)	113	8	20	15			
40	<i>E. praecisa</i> (Knull)	13	39			51		
41	<i>E. aspera</i> (Beamer & Griffith)	66	9	40	10	49		
42	<i>E. dowelli</i> (Beamer)	21	79	90	10			
43	<i>E. furcillata</i> (Beamer)	27		13	9			
44	<i>E. plena</i> (Beamer)	206	128	75	55	106		
45	<i>E. crossi</i> (Hepner)	2			16			
46	<i>E. funesta</i> (Beamer)	515	47	51	10	6		
47	<i>E. rubrataeniensis</i> (Beamer)	19	27	85	32			2
48	<i>E. reptata</i> (Johnson)	46	111		2			
49	<i>E. minima</i> (Johnson)		7					
50	<i>E. rubroscuta</i> (Gillette)	91	82	103	111		2	9
51	<i>E. nitida</i> (Beamer)	28		32	3	17		
52	<i>E. acicularis</i> (Beamer)		104	90	12	61		
53	<i>E. penobliqua</i> (Beamer)				20	2		
54	<i>E. stolata</i> (McAtee)	51	104	78	36	26	1	1

²The table shows the number of studied specimens from each collection. See Materials and Methods for the museum abbreviations.

#	Species	Museums						
		INHS	OSU	KSEM	MEM	CNC	USNM	CSUC
55	<i>E. ohioensis</i> (Knull)	1	55	1				
56	<i>E. fumida</i> (Gillette)	114	38	53	16	20	1	8
57	<i>E. jonesi</i> (Hepner)	1						
58	<i>E. magnacalx</i> (Beamer)	167	137	54	111	3		
59	<i>E. penenoeva</i> (Beamer)	14	8	73	14			
60	<i>E. lucileae</i> (Hepner)	6		1	5			
61	<i>E. planerae</i> sp.n.	12						
62	<i>E. amabilis</i> (McAtee)	2	3	28	1		1	
63	<i>E. stylata</i> (Johnson)	1	23		37			
64	<i>E. ulmosa</i> (Ross & DeLong)	88	4		114			
65	<i>E. harpax</i> (Beamer)	2	76	29	32			
66	<i>E. ulmalatae</i> (Ross & DeLong)	30	3		119			
67	<i>E. angularis</i> (Beamer)	22	50	20	10			
68	<i>E. sincera</i> (Johnson)		14			25		
69	<i>E. hamata</i> (Beamer)	57	75	49	103	30		
70	<i>E. unicuspidis</i> (Beamer)	26	6	47	114	3		
71	<i>E. obliqua</i> (Say)	94	205	27	342	18	1	
72	<i>E. varia</i> (McAtee)	1			1		1	
73	<i>E. fulvocephala</i> (Robinson)	111	156	49	305	12	1	
74	<i>E. bicornis</i> (Beamer)	12	30	10	3			
75	<i>E. obvia</i> (Beamer)	9	1	20	23	1		
76	<i>E. minuta</i> (Johnson)	4	24		85			
77	<i>E. wyatti</i> sp.n.	8			1			
78	<i>E. lemmisca</i> (McAtee)	81	3		7			
79	<i>E. idonea</i> (Beamer)	5	76	58	2			
80	<i>E. beckiae</i> (Hepner)	1			12			
81	<i>E. crevecoeuri</i> (Gillette)	15	8	49	4		1	7
82	<i>E. malleiformis</i> (Beamer)	2		4	5			
83	<i>E. meridiana</i> (Hepner)	1		1	2			
84	<i>E. zephyr</i> (Ross & DeLong)	8			8			
85	<i>E. ilicis</i> (Ross)	80		1	6			
86	<i>E. parvispicata</i> (Beamer)	29	3	15	142	3		
87	<i>E. insigna</i> (Beamer & Griffith)	194		14	6	59		
88	<i>E. cornipes</i> (Beamer)	41	121	19	91	11		
89	<i>E. falcata</i> (Beamer)	44	2	32	29			
90	<i>E. herberti</i> (Hepner)	1			69			
91	<i>E. acutalis</i> (Ross & DeLong)	4						
92	<i>E. cotidiana</i> (Beamer)	2	10	6	2			
93	<i>E. tenebrosa</i> (Knull)	33	152	2	82			
94	<i>E. tenuispica</i> (Beamer)	42	268	37	43	10		
95	<i>E. rugosae</i> (Ross & DeLong)	24			8			
96	<i>E. kanza</i> (Robinson)	134	95	35	127	10		
97	<i>E. spatulata</i> (Beamer)		58	3	25			
98	<i>E. frisoni</i> (Ross & DeLong)	6		2	2			
99	<i>E. sinua</i> (Johnson)	11	3	9	7	40		
100	<i>E. normanti</i> (Hepner)	4			96			
101	<i>E. nigriphylla</i> (Hepner)	3		1	11			
102	<i>E. rhododendronae</i> (Hepner)	1						
103	<i>E. verdana</i> (Ross & DeLong)	1			1			
104	<i>E. victorialis</i> (Knull)	70	66	13	2	4		
105	<i>E. aenea</i> (Beamer)	24	66	14	5	15		
106	<i>E. diffusa</i> (Beamer)	86	85	69	32			
107	<i>E. inconspicua</i> (Johnson)		9					
108	<i>E. jocosa</i> (Beamer)	10		10	32	1		
109	<i>E. cuneata</i> (Beamer)	2	7	52	50			
110	<i>E. scythia</i> (Auten & Johnson)	2	12		8			
111	<i>E. albescens</i> (Beamer)	33	17	26	13			
112	<i>E. ampla</i> (Knull)	1	19		16			
113	<i>E. freta</i> (Knull)	3	11	1	2			
114	<i>E. lasteri</i> (Hepner)	1			2			

#	Species	Museums						
		INHS	OSU	KSEM	MEM	CNC	USNM	CSUC
115	<i>E. enata</i> (Knull)	8	46	2	9	7		
116	<i>E. cauta</i> (Beamer)	30	52	8	33			
117	<i>E. lyratae</i> (Ross & DeLong)	57			31			
118	<i>E. rufostigmata</i> (Beamer)	53	78	190	12			
119	<i>E. volucris</i> (Beamer)	44	49	31	201			
120	<i>E. similalis</i> (Ross & DeLong)	3			28			
121	<i>E. abolla</i> (McAtee)	3	13	37	9	10	5	
122	<i>E. penelutea</i> (Beamer)	11	23	76	21	2		
123	<i>E. scissa</i> (Beamer)	12	1	9	16			
124	<i>E. eluta</i> (McAtee)	17	112	12	37	38	1	
125	<i>E. vinaria</i> (Beamer)	5	1	36	1			
126	<i>E. atrimucronata</i> (Beamer)	66	13	7	7			
127	<i>E. coarctata</i> (Beamer)	4	11	17	8			
128	<i>E. modica</i> (Beamer)	13	18	31	93			
129	<i>E. gleditsia</i> (Beamer)	14	88	4	3	7		
130	<i>E. clavata</i> (DeLong)	91	31	24	80			
131	<i>E. quadrata</i> (Beamer)	44	96	26				
132	<i>E. juncea</i> (Beamer)			19	3			
133	<i>E. apta</i> (Beamer)			6	3			
134	<i>E. nava</i> (Beamer)	1		13				
135	<i>E. barbarae</i> (Hepner)	1						

APPENDIX II

Host Plant Index

Acer sp. 251, 283
Acer pensylvanicum 251
Acer rubrum 251, 278
Acer saccharum 250, 251
Acer spicatum 251
Aesculus sp. 246, 281, 283, 319
Aesculus glabra 255, 266, 285, 287
Aesculus octandra 285
Alnus sp. 246
Alnus incana 266
Alnus rugosa 296
Betula alleghaniensis 259, 309
Betula lutea 259
Betula papyrifera 259, 309
Betula populifolia 259
Carpinus sp. 235, 239, 243, 248, 253, 263, 274, 282, 295, 316
Carpinus caroliniana .. 247, 274, 283, 315, 319
Carya sp. 274, 283, 315
Carya cordiformis 307, 316
Carya illinoensis 272, 310, 316
Carya ovalis 316
Carya ovata 282, 316
Carya tomentosa 272, 309, 316
Cercis canadensis 254, 281, 282
Corylus americana 256
Crataegus sp. 234, 236, 239, 262, 297
Crataegus marshallii 234
Crataegus mollis 234, 257, 258, 266
Crataegus viridis 234, 261, 264
Diospyros virginiana 305
Fagus sp. 274
Fagus grandifolia 268, 295
Gleditsia triacanthos ... 242, 303, 319, 320, 321
Ilex decidua 240, 249, 274, 275, 276, 280, 281, 283, 286, 289, 292, 293, 299, 315, 318
Juglans sp. 244
Juglans nigra 245, 252
Malus sp. 271, 291
Malus pumila 216, 232, 260
Myrica cerifera 284
Planera aquatica 273
Populus sp. 285
Prunus sp. 262, 323
Prunus avium 260, 262
Prunus emarginata 262
Prunus lanata 287
Prunus persica 216, 262
Prunus serotina 256
Prunus virginiana 256, 260, 299
Physocarpus apulifolius 277
Quercus sp... 281, 282, 283, 288, 289, 290, 291, 305, 312, 315, 322
Quercus alba 254, 291
Quercus chapmannii 312, 313
Quercus ellipsoidalis 305, 307
Quercus imbricaria 288, 289, 291, 307
Quercus lyrata 305, 308, 310, 312
Quercus marilandica 272, 307
Quercus muehlenbergii 291
Quercus myrtifolia 313
Quercus nigra 248, 290, 300, 305, 312
Quercus pagoda 298, 307
Quercus pagodafoliae 248
Quercus palustris 307
Quercus phellos 290, 300, 312
Quercus rubra var. *ambigua* 254
Quercus stellata 293
Quercus velutina 289, 291
Rhododendron sp. 301
Rosa sp. 267
Rubus sp. 284
Rubus cuneifolius 284
Salix sp. 311
Salix babylonica 311
Salix interior 311
Salix nigra 311
Spiraea alba 267
Tilia americana 244, 270, 317
Ulmus sp. 281
Ulmus alata 242, 250, 264, 274, 275, 276, 280, 299
Ulmus americana 275, 276, 279, 280, 282
Ulmus rubra 242, 275, 276, 279
Vaccinium sp. 270, 302

APPENDIX III

Species Index

(junior synonyms in *italics*; pages of individual species accounts in **bold**)

<i>abolla</i> McAtee	230, 313 , 314, 330	<i>caryaglabrae</i> Hepner	295
<i>accensa</i> McAtee	313	<i>cauta</i> Beamer	229, 310 , 330
<i>accurata</i> Beamer	263	<i>cautoides</i> Hepner	300
<i>acicularis</i> Beamer	223, 267 , 328	<i>cavena</i> Auten & Johnson	290
<i>acutalis</i> Ross & DeLong	227, 293 , 329	<i>celebrata</i> Johnson	220, 241 , 328
<i>adae</i> Hepner	294	<i>chambersi</i> Hepner	275
<i>ador</i> McAtee	324	<i>chandleri</i> Hepner	282
<i>aenea</i> Beamer	228, 302 , 303, 329	<i>clarysae</i> Hepner	308
<i>aesculella</i> Ross & DeLong	i, 222, 255 , 328	<i>clavata</i> DeLong	231, 320 , 330
<i>afflicta</i> Beamer	221, 251 , 252, 328	<i>clavatoides</i> Hepner	319
<i>alata</i> Knull	263	<i>cliffordi</i> Hepner	266
<i>albanyensis</i> Hepner	262	<i>cliftoni</i> Hepner	309
<i>albescens</i> Beamer	229, 306 , 307, 329	<i>clydei</i> Hep	307
<i>alneti</i> Dahlbom	324	<i>coarctata</i> Beamer	231, 318 , 330
<i>alternata</i> Johnson	310	<i>coleyi</i> Hepner	316
<i>amabilis</i> McAtee	224, 273 , 274, 329	<i>collinsi</i> Hepner	309
<i>ampaiae</i> Hepner	243	<i>complicata</i> Johnson	219, 235 , 328
<i>ampasa</i> Ross & DeLong	233, 234	<i>contrastata</i> Auten & Johnson	316
<i>ampla</i> Knull	229, 307 , 329	<i>cooni</i> Hepner	261
<i>andrewsi</i> Hepner	263	<i>cornipes</i> Beamer.....	227, 291 , 329
<i>angularis</i> Beamer	225, 277 , 329	<i>cotidiana</i> Beamer	227, 294 , 329
<i>anomala</i> Knull	220, 239 , 240, 328	<i>crataegi</i> Johnson	219, 236 , 328
<i>apta</i> Beamer	231, 322 , 330	<i>crevecoeuri</i> Gillette.....	i, 226, 286 , 287, 329
<i>aspera</i> Beamer & Griffith	222, 259 , 260, 328	<i>crossi</i> Hepner	223, 262 , 328
<i>atrimucronata</i> Beamer	230, 317 , 318, 330	<i>cruciformis</i> Beamer	221, 247 , 328
<i>autenae</i> Johnson	221, 248 , 328	<i>cuneata</i> Beamer	229, 305 , 329
<i>auteni</i> Johnson	248	<i>cuneatoides</i> Hepner	316
<i>barbarae</i> Hepner	231, 323 , 330	<i>curtaega</i> Hepner.....	318
<i>barnesae</i> Hepner	318	<i>davichi</i> Hepner	316
<i>beckiae</i> Hepner	226, 286 , 329	<i>decorata</i> Auten & Johnson.....	297
<i>belindae</i> Hepner	278	<i>dianae</i> Hepner	254
<i>benedicti</i> Hepner	233	<i>diffisa</i> Beamer	i, 228, 303 , 329
<i>betulaspera</i> Richards & Varty.....	259	<i>divisa</i> McAtee	220, 230, 245 , 328
<i>bicornis</i> Beamer	225, 282 , 329	<i>dolosa</i> Beamer & Griffith	220, 237, 239 , 328
<i>bifurca</i> Beamer	235	<i>dorisaе</i> Hepner	236
<i>bitincta</i> McAtee	219, 235 , 236, 328	<i>dorsalis</i> Gillette	232
<i>boniorum</i> Hepner	266	<i>dorsalis</i> Horváth	232
<i>bowmanorum</i> Hepner	306	<i>dowellii</i> Beamer	222, 260 , 328
<i>brundusa</i> Robinson	i, 220, 241 , 242, 328	<i>dunni</i> Hepner	221, 250 , 328
<i>brundusoides</i> Hepner	249	<i>edgari</i> Hepner	271
<i>caldwelli</i> Johnson	321	<i>electa</i> McAtee	219, 233 , 234, 328
<i>camirei</i> Hepner	266	<i>eluta</i> McAtee	230, 316 , 330
<i>canadensis</i> sp.n.	215, 217, 219, 237 , 238, 328	<i>enata</i> Knull	229, 309 , 330
<i>carmiensis</i> Hepner	316	<i>enatoides</i> Hepner	251

enfieldensis Hepner258

extima Beamer298

extimoides Hepner299

extrema Auten & Johnson255

fagiphylla Hepner294, 295

falcata Beamer227, **292**, 329

florida Ross & DeLong290

floridoides Hepner..... 302

fragilis Johnson..... 283

frazieri Hepner273, 274

freta Knull229, **308**, 329

fretoides Hepner281

frisoni Ross & DeLong227, **298**, 329

fultonae Hepner243

fulvocephala Robinson225, **281**, 329

fumida Gillettei, 224, **269**, 270, 329

funesta Beamer223, **263**, 328

furcillata Beamer223, **261**, 328

gargantua Johnson285

garretsoni Hepner283

gladysae Hepner.....308

gleditsia Beamer231, **319**, 320, 330

hamata Beamer225, **278**, 329

hamiltoni Hepner315

hamlinorum Hepner309

harei Hepner248

harpax Beamer224, **275**, 276, 329

harrisi Hepner273, 274

haspata Ross & DeLong222, **256**, 328

herberti Hepner227, **292**, 293, 329

hildae Hepner309

hormchunae Hepner259

iconica McAtee313, 314

idonea Beamer226, 284, **285**, 329

ilexae Hepner292

ilicis Ross226, **289**, 329

inconspicua Johnson228, **304**, 329

infinita Beamer222, **253**, 254, 328

insigna Beamer & Griffith227, **290**, 291, 329

interjecta Beamer & Griffith 238

intricata Johnson219, **237**, 328

isei Hepner247

ivae Hepner251

ivani Hepner280

joanneae Hepner234

joanneae Hepner298

jocosa Beamer228, **304**, 305, 329

jonesi Hepner224, **270**, 329

juglandacea Ross & DeLong245

juglandis Knull & Auten220, **244**, 328

juncea Beamer231, **321**, 322, 330

kanensis Hepner259

kanza Robinson227, **296**, 297, 329

kennethi Hepner306, 307

kingstoniensis Hepner259

lasteri Hepner229, **308**, 309, 329

latapex Beamer253

lauriphylla Hepner312

lawsoni Baker232

lawsoni Robinson232

lawsoniana Baker..... 219, **232**, 233, 328

leforsorum Hepner317

lemnisca McAteei, 226, 245, **284**, 285, 329

leucophylla Hepner298

lianae Hepner281

lindleyi Hepner253

lloydi Hepner221, **245**, 246, 328

loisae Hepner245

lucileae Hepner224, **272**, 329

lyratae Ross & DeLong229, **310**, 311, 330

lyratiphylla Hepner304

magnacalx Beamer224, **271**, 329

malleiformis Beamer226, **287**, 329

mansueta Beamer220, **240**, 328

martini Hepner221, **249**, 328

maryae Hepner318

mccomasi Hepner310

meridiana Hepner226, **288**, 329

merkli Hepner247

minima Johnson223, **265**, 328

minuta Johnson225, **283**, 329

mitlini Hepner316

modica Beameri, 231, **319**, 330

morelandi Hepner314

morrisi Hepner221, **246**, 328

nava Beamer231, **322**, 323, 330

navoides Hepner289

nebekeri Hepner..... 261

neeli Hepner259

newtonensis Hepner288

nigriphylla Hepner228, **300**, 329

nitida Auten & Johnson254

nitida Beamer223, 254, **266**, 328

noeva Gillette221, **252**, 328

noevoides Ross & DeLong..... 254

noevus Gillette252

nondescripta Johnson222, **253**, 328

normanti Hepner228, **299**, 329

- obliqua* Say217, 225, **279**, 280, 329
obvia Beamer225, **282**, 283, 329
occidua Beamer & Griffith... 220, 237, **238**, 328
odettae Hepner308
ohioensis Knull224, **269**, 329
pagodifoliae Hepner 298
paigeae Hepner 253
paramera Hepner 313
parma McAtee 252
parrotti Hepner 295
parsonsi Hepner 221, **251**, 328
parvispicata Beamer 226, **290**, 329
patricki Hepner 271
pecanae Hepner 283
pelta McAtee 279
penelutea Beamer 230, **314**, 315, 330
penoeva Beamer 224, **271**, 272, 329
penetura Hepner 312
penobliqua Beamer 223, **267**, 268, 328
perita Beamer 222, **255**, 256, 328
pfrimmeri Hepner 221, **247**, 248, 328
phelliphylla Hepner 300
pietersi Hepner 316
planerae sp.n. 224, **273**, 329
plena Beamer 223, **261**, 262, 328
ponderosa Auten & Johnson 258
praecisa Knull 222, **259**, 328
pulchra Naudé 263
pura Knull 267
quadrata Beamer 231, **321**, 330
quadratoides Hepner 304, 305
repleta Johnson 223, **264**, 328
rhododendronae Hepner 300
rhododendronae Hepner 228, **300**, 301, 329
rolandi Hepner 292
rosenkranzi Hepner 295
rubens Beamer 222, **258**, 328
rubiphylla Hepner 298
rubrataeniensis Beamer 223, **263**, 264, 328
rubroscuta Gillette 223, **265**, 266, 328
rubrotincta Johnson 220, **243**, 328
rufostigmata Beamer 230, **311**, 330
rugosae Ross & DeLong 227, **296**, 329
sagittata Beamer 219, **234**, 235, 328
saileri Hepner 316
salmoides Ross & DeLong..... 247
schusteri Hepner 266
scissa Beamer 230, **315**, 330
scytha Auten & Johnson 229, **306**, 329
shanklandi Hepner 309
sikorowskii Hepner 275
similalis Ross & DeLong 230, **313**, 330
sincera Johnson 225, **277**, 278, 329
sinua Johnson 228, **298**, 299, 329
solomoni Hepner 248
spatulata Beamer..... 227, **297**, 329
spearca Johnson & Auten 222, **254**, 328
stolata McAtee 224, 229, **268**, 328
stulta Auten & Johnson 305
stylata Johnson 224, 273, **274**, 329
styraxae Hepner 243
subnubila Beamer 311
tenebrosa Knull 227, **294**, 295, 329
tenuispica Beamer 227, **295**, 329
tietzi Ross & DeLong 233
tolerata Knull 221, **249**, 250, 328
tomaneki Hepner 312
tomentosae Hepner 271, 272
torra Robinson 320
torva Beamer 222, **257**, 258, 328
tridenoides Hepner 279
tridens Beamer 220, **243**, 244, 328
tura Ross & DeLong 312
turoides Hepner 312
ulmalatae Ross & DeLong..... 225, **276**, 329
ulmarubrae Hepner 299
ulmosa Ross & DeLong i, 224, **275**, 329
unicuspidis Beamer 225, **279**, 329
uniforma Hepner 241, 242
varia McAtee 225, **280**, 281, 329
vartyi Hepner 290
velutinae Hepner 288, 289
verae Hepner 316
verdana Ross & DeLong 228, **301**, 329
victorialis Knull 228, **302**, 329
vierii Hepner 279
vinaria Beamer 230, **317**, 330
volucris Beamer 230, **312**, 330
wandae Hepner 271
whitti Hepner 220, **242**, 328
wyatti sp.n. 217, 226, **284**, 329
wysongi Ross & DeLong 222, **257**, 328
xanthocephala Robinson 281
zephyr Ross & DeLong 226, **288**, 289, 329



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