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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Review of the Species of New World Erythroneurini (Hemiptera: Cicadellidae: Typhlocybinae).
III. Genus Erythridula

Dmitry A. Dmitriev and Christopher H. Dietrich

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. lloydii Hepner and E. lausteri Hepner; E. rhododendronae Hepner is emended to E. rhododendronae Hepner.

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

Erythridula obliqua species group
Robinson, 1926a:109
Erythridula (Erythridula) Young, 1952b:81 (Type: Tettigonia obliqua Say, 1825)
Arboridia (Erythridula) Dworakowska, 1970g:615
Erythridula (Erythridula) Hepner, 1976d:312 (Missp.)
Erythridula (Erythridula) 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 movable 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. 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 crossection, 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

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1 An 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)
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97’. Aedeagus round in crossection, 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 apex 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
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 crossection 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 aedeagus 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 dorsally. ............................................................. 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 rounded apex in ventral view (Fig. 106d). ............................................................. 106. E. diffisa (Beamer)

108(106). Aedeagal shaft round in crossection, evenly curved in lateral view, with small compressed 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. jocosa (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 crossection, 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). ..................................................... 112

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. 118a−118a). ................................................. 118. *E. rufostigmosa* (Beamer)

121’. Aedeagus usually with small toothlike processes usually arising at apex of shaft (Fig. 119d−119d). 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.

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. pendulnea* (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 lat- erad, 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 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*a 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.
2. *Erythridula electa* (McAtee, 1920) (Fig. 2)

*Erythridula electa* McAtee, 1920a:282

*Erythridula electa* Beamer, 1930b:418

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

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

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

*Erythrineura (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.

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 pressed 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.
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; preatrum 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 3. *E. sagittata* (Beamer). d – from Hepner, unpublished.

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 crossection, 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, toothlike, 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.

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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 crossection, 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.

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

Figure 6. *E. crataegi* (Johnson). a – holotype.
7. *Erythridula intricata* (Johnson, 1935) (Fig. 7)

*Erythroneura intricata* Johnson, 1935a:86  
*Erythroneura* (*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; preatrum 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.

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; preatrum shorter than shaft; shaft straight and slender in lateral view, round in crossection, 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.

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 crossection, 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. 9a.), which varies interspecifically among other species of Erythridula. The male genitalia of the two taxa are identical.
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.

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.
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)

*Erythroneura celebrata* Johnson, 1935a:82

*Erythroneura* (*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).](image)

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

*Erythroneura brundusa* Robinson, 1924b:155

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

*Erythroneura* (*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).](image1)

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).](image2)
16. *Erythridula rubrotincta* (Johnson, 1935) (Fig. 16)

*Erythroneura rubrotincta* Johnson, 1935a:91
*Erythroneura (Erythridula) rubrotincta* Young, 1952b:84
*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 crosssection, 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.

17. *Erythridula tridens* (Beamer, 1930) (Fig. 17)

*Erythroneura tridens* Beamer, 1930b:450
*Erythroneura (Erythridula) tridens* Young, 1952b:84
*Erythroneura (Erythridula) styraiae* Hepner, 1976c:300, 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 crosssection, 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).](image)

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

*Erythronoeura juglandis* Knull & Auten, 1938a:532
*Erythronoeura (Erythridula) juglandis* Young, 1952b:83
*Erythridula 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).](image)
19. *Erythridula divisa* (McAtee, 1924) (Fig. 19)

*Erythroneura abolla* var. *divisa* McAtee, 1924c:37  
*Erythroneura divisa* Beamer, 1930b:419  
*Erythroneura (Erythridula) divisa* Young, 1952b:83  
*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 (Maloch), (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.](image)

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

*Erythroneura (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 crossection, 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.

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

*Erythronoeura (Erythridula) morrisi* Hepner, 1977a:251

*Erythridula morrisi* 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 crossection, 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 20. E. lloydi (Hepner).](image)

![Figure 21. E. morrisi (Hepner).](image)
22. *Erythridula cruciformis* (Beamer, 1930) (Fig. 22)

_Erythridula cruciformis_ Beamer, 1930b:443
_Erythridula (Erythroneura) cruciformis_ Young, 1952b:82
_Erythroneura salmoides_ Ross & DeLong, 1953a:83, _syn.n._
_Erythridula (Erythroneura) 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 crossection, 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.

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 crossection, 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. pagodafoliae*.

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

*Erythroneura auteni* Johnson, 1935a:73

*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, depressed, 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.

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![Figure 23. *E. pfrimmeri* (Hepner).](image)

![Figure 24. *E. autenae* (Johnson). a1, a2 – color variations.](image)
25. *Erythridula martini* (Hepner, 1976) (Fig. 25)

_Erythroneura (Erythridula) martini_ Hepner, 1976a:207

_Erythroneura (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.](image)

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

_Erythroneura tolerata_ Knnull, 1951c:180

_Erythroneura (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 (Knnull), (OSU).

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

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

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

_Erythroneura (Erythridula) dunni_ Hepner, 1976c:295

_Erythridula dunni_ 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 crossection, 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. dunni* (Hepner). a – holotype.
28. *Erythridula parsonsi* (Hepner, 1976) (Fig. 28)

*Erythroneura (Erythridula) parsonsi* Hepner, 1976c:295  
*Erythroneura (Erythridula) ivae* Hepner, 1976c:297  
*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 crosssection, 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.](image)

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 apextruncate 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.

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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 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*.

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![Figure 30. *E. noeva* (Gillette). a2 – color var. *parma* McAtee.](image)
31. *Erythridula nondescripta* (Johnson, 1935) (Fig. 31)

*Erythroneura nondescripta* Johnson, 1935a:92
*Erythroneura (Erythridula) nondescripta* Young, 1952b:83
*Erythroneura (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 crosssection, 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.

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

*Erythroneura infinita* Beamer, 1930b:446
*Erythroneura latapex* Beamer, 1930b:447, syn.n.
*Erythroneura (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*.

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

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

_Erythroneura 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_.

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

_Erythroneura perita_ Beamer, 1935a:99  
_Erythroneura extrema_ Auten & Johnson, 1936a:64  
_Erythroneura (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. *Erythridula haspata* (Ross & DeLong, 1953) (Fig. 36)
   Erythrineura haspata Ross & DeLong, 1953a:85
   Erythridula 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.](image)

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.
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 38. E. torva (Beamer).

Figure 39. E. rubens (Beamer).
40. *Erythridula praecisa* (Knnull, 1946) (Fig. 40)

*Erythridula praecisa* Knnull, 1946a:46
*Erythroneura (Erythridula) praecisa* Young, 1952b:83
*Erythroneura (Erythridula) hormchunae* Hepner, 1976b:120, 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 (Knnull), (OSU).

**Distribution:** Central and eastern USA, southeastern Canada.

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

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

*Erythridula aspera* Beamer & Griffith, 1935a:18
*Erythroneura (Erythridula) aspera* Young, 1952b:82
*Erythroneura (Erythridula) neeli* Hepner, 1976b:121, 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.*

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

*Erythridula dowelli* Beamer, 1932b:62

*Erythridula* (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.*

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Figure 42. *E. dowelli* (Beamer). d – from Hepner, unpublished.
43. *Erythridula furcillata* (Beamer, 1930) (Fig. 43)

*Erythroneura furcillata* Beamer, 1930b:452

*Erythroneura furcillata* Beamer, 1930b:421, missp.

*Erythroneura furcellata* DeLong & Caldwell, 1937c:73, missp.

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


*Erythroneura (Erythridula) nebeberi* Hepner, 1976b:120, missp.


*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.

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

*Erythroneura plena* Beamer, 1930b:442

*Erythroneura pleua* McConnell, 1931a:560, missp.

*Erythroneura (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-
Central 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.

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

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


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

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.

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*.

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

*Erythroneura repleta* Johnson, 1935a:78

*Erythroneura (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*.

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

Figure 48. *E. repleta* (Johnson). a – holotype.
49. *Erythridula minima* (Johnson, 1935) (Fig. 49)

*Erythroneura minima* Johnson, 1935a:92
*Erythroneura (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 acuminute 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.

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

*Typhlocyba rubroscuta* Gillette, 1898a:755
*Erythroneura rubroscuta* Van Duzee, 1916a:77
*Erythroneura (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 acuminute 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,
51. *Erythridula nitida* (Beamer, 1935) (Fig. 51)
   - *Erythronoeura nitida* Beamer, 1935a:103
   - *Erythronoeura (Erythridula) nitida* Young, 1952b:83
   - *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*.

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

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

Figure 51. *E. nitida* (Beamer). c1–c3—variation of shape of aedeagus; c3—holotype *E. schusteri* Hepner.
52. *Erythridula acicularis* (Beamer, 1932) (Fig. 52)

*Erythroneura acicularis* Beamer, 1932i:126
*Erythroneura (Erythridula) acicularis* Young, 1952b:82


*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)

*Erythroneura penobliqua* Beamer, 1930b:453
*Erythroneura (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.

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

*Erythridula stolata* McAtee, 1920:279
*Erythridula stolata* Beamer, 1930b:420
*Erythridula (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 53. *E. penobliqua* (Beamer).

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.](image)

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*.

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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.

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

**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.

59. *Erythridula penenoeva* (Beamer, 1930) (Fig. 59)

*Erythroneura penenoeva* Beamer, 1930b:438  
*Erythroneura (Erythridula) penenoeva* Young, 1952b:83, missp.  
*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...
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 crosssection, 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. illinoinensis.*

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

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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 crosssection, 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.*

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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 pretrarium 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.](image)

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


*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 $90^\circ$. 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 $\delta$, 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.

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

*Erythridula 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, toothlike; third point elongate, longer than distance between other two points; angle between basal and third points less than $90^\circ$. 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, divergent only at apex; distal processes absent. Coloration usual for genus; anteclypeus pale; thoracic venter pale; abdomen pale dorsally. 

**Type locality:** Holotype $\Psi$, 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*.

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Figure 62. *E. amabilis* (McAtee). a – holotype.
64. *Erythridula ulmosa* (Ross & DeLong, 1953) (Fig. 64, Plate 1b)

*Erythridula ulmosa* Ross & DeLong, 1953a:78
*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 crosssection, 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. 64d,).

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

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

*Erythridula harpax* Beamer, 1930b:432
*Erythroneura (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 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, 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.

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**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.*

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

67. *Erythridula angularis* (Beamer, 1930) (Fig. 67)

*Erythroneura angularis* Beamer, 1930b:447  
*Erythroneura (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, 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, 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)

*Erythroneura sincera* Johnson, 1935a:94  
*Erythroneura (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).](image)

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).](image)
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).](image)

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

*Tettigonia obliqua* Say, 1825a:342
*Erythroneura obliqua* Fitch, 1851a:63
*Erythroneura obliquua* 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 crossection, 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.*

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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.

73. *Erythridula fulvocephala* (Robinson, 1924) (Fig. 73)

*Erythridula fulvocephala* Robinson, 1924b:155


*Erythridula (Erythridula) xanthocephala* Young, 1952b:83

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

*Erythridula (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*.

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.

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

*Erythroneura minuta* Johnson, 1935a:93
*Erythroneura fragilis* Johnson, 1935a:93, syn.n.
*Erythroneura (Erythridula) minuta* Young, 1952b:83
*Erythroneura (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.

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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.

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

*Erythronoeura idonea* Beamer, 1935a:100

*Erythronoeura gargantua* Johnson, 1935a:81

*Erythronoeura (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.

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

**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*.

81. *Erythridula crevecoeuri* (Gillette, 1898) (Fig. 81, Plate 1f)

*Typhlocyba crevecoeuri* Gillette, 1898a:767

*Typhlocyba crevecouri* Osborn, 1905d:274, missp.

*Erythroneura crevecoeur* Van Duzee, 1916a:77

*Erythroneura creviceouri* Brimley, 1938a:98, missp.

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

*Erythridula crevecoeur* 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.*

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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.*

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

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.

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 crossection, 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*.

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

*Erythridula ilicis* Ross, 1953b:189

*Erythridula ilicis* Ross, 1953b:188, missp.

*Erythridula (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*.

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

![Figure 85. *E. ilicis* (Ross). b–d – from Ross, 1953b.](image)
86. *Erythridula parvispicata* (Beamer, 1930) (Fig. 86)

_Erythronoeura parvispicata_ Beamer, 1930b:435
_Erythronoeura parvaspicata_ Beamer, 1935a:100, missp.
_Erythronoeura cavina_ Auten & Johnson, 1936a:61, *syn.n.*
_Erythronoeura (Erythridula) parvispicata_ Young, 1952b:83
_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. 86c,) are more strongly compressed than usual, but this variation appears to be intraspecific.

87. *Erythridula insigna* (Beamer & Griffith, 1935) (Fig. 87)

_Erythronoeura insigna_ Beamer & Griffith, 1935a:17
_Erythronoeura (Erythridula) insigna_ Young, 1952b:83
_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 crossection, 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.

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

_Erythridula cornipes_ Beamer, 1930b:449
_Erythrideura 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 crossection, 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.
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 crossection, with small compressed dorsal distal lobe; aedegal 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.](image)

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 crossection, with small compressed dorsal distal lobe; aedegal 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.

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

Erythridula 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 90. E. herberti (Hepner). a – holotype.

Figure 91. E. acutalis (Ross & DeLong). b–c – from Ross and DeLong, 1953a
92. *Erythridula cotidiana* (Beamer, 1930) (Fig. 92)

*Erythronoeura cotidiana* Beamer, 1930b:433

*Erythronoeura* (*Erythridula*) *cotidiana* Young, 1952b:82

*Erythronoeura* (*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, 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 crossection, with long compressed dorsal distal lobe; aedeagal apex acuminata 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).](image)

93. *Erythridula tenebrosa* (Knull, 1946) (Fig. 93)

*Erythronoeura tenebrosa* Knull, 1946a:48

*Erythronoeura* (*Erythridula*) *tenebrosa* Young, 1952b:84

*Erythronoeura* (*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 crossection, with long dorsal distal lobe; aedeagal apex acuminata 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.

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

*Erythridula tenuispica* (Beamer, 1930b:444)

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

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

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

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

*Erythroneura 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 crossection, 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.

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

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*.

96. *Erythridula kanza* (Robinson, 1924) (Fig. 96)

*Erythroneura kanza* Robinson, 1924a:58

*Erythroneura kansa* 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 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. 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*.

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**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.

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**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*) *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*.

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

*Erythridula normanti* Hepner, 1976b:120


*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.
101. *Erythridula nigriphylla* (Hepner, 1977) (Fig. 101)

*Erythroneura (Erythridula) nigriphylla* Hepner, 1977b:54

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

*Erythroneura (Erythridula) cautoides* 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 crossection, 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).](image)


(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.

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

*Erythroneura 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; preatrum 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.

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

Figure 103. *E. verdana* (Ross & DeLong). a – holotype; b–d2 – from Ross & DeLong, 1953a.
104. *Erythridula victorialis* (Knnull, 1946) (Fig. 104)

_Erythroleura victorialis_ Knnull, 1946a:49
_Erythroleura (Erythridula) victorialis_ Young, 1952b:84
_Erythroleura (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 (Knnull), (OSU).

**Distribution:** Eastern USA, southeastern Canada.

**Host plants:** _Vaccinium_ sp.

![Figure 104. *E. victorialis* (Knnull). a1, a2 – color variations.](image)

105. *Erythridula aenea* (Beamer, 1930) (Fig. 105)

_Erythroleura aenea_ Beamer, 1930b:436
_Erythroleura (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 crosssection, 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.*

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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 crosssection, 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.*
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; preatrum 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.

108. *Erythridula jocosa* (Beamer, 1935) (Fig. 108)

*Erythroneura jocosa* Beamer, 1935a:101
*Erythroneura (Erythridula) jocosa* Young, 1952b:83
*Erythroneura (Erythridula) lyratiphylla* Hepner, 1977b:55, syn.n.
*Erythroneura (Erythridula) quadratoides* Hepner, 1977b:51, syn.n.
*Erythroneura (Erythridula) quadritooides* 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; preatrum 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.

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. Pygophore 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 108. *E. jocosa* (Beamer).  
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
*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).](image)

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 crosssection, 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.

112. Erythridula ampla (Knull, 1951) (Fig. 112)
Erythronoeura ampla Knull, 1951c:179
Erythronoeura (Erythridula) ampla Young, 1952b:120
Erythronoeura (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.
113. *Erythridula freta* (Knull, 1951) (Fig. 113)

*Erythridula 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 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 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.](image)

114. *Erythridula lasteri* (Hepner, 1977) (Fig. 114)

*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.

115. *Erythridula enata* (Knull, 1951) (Fig. 115)

*Erythroneura enata* Knull, 1951c:179
*Erythroneura* (*Erythridula*) *enata* Young, 1952b:120

*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 dorsal, 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 114. E. lasteri (Hepner).](image)

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 illinoinensis*.

![Figure 116. E. cauta (Beamer). a1, a2 – color pattern variations.](image)

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.

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 vitta or with large basal dark area, often extended onto pronotum, vertex midline pale or dark; annectypeus 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 vitta, often fused together, or without oblique vitta; 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)

*Erythrideura volucris* Beamer, 1930a:445
*Erythrideura (Erythridula) volucris* Young, 1952b:84

*Erythrideura (Erythridula) tomaneki* Hepner, 1977c:359, syn.n.

*Erythrideura (Erythridula) lauriphylla* Hepner, 1978a:134, 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.](image)
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; ventral processes absent; distal processes short, toothlike, apical. 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*.

121. *Erythridula abolla* (McAtee, 1920) (Fig. 121)

*Erythroneura abolla* McAtee, 1920a:285


*Erythroneura abolla* var. *accensa* McAtee, 1920a:288, syn.n.

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


*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.

**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.

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Figure 121. *E. abolla* (McAtee). a2 – holotype *E. iconica* McAtee; c1–d2 – variations in shape of ventral processes of aedeagus.
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.

Erythridula scissa (Beamer, 1930) (Fig. 123)
Erythroneura scissa Beamer, 1930b:448
Erythroneura (Erythridula) scissa Young, 1952b:84
Erythroneura (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 122. E. penelutea (Beamer).

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.**

*Erythroneura 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. illinoinensis*.

**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.](image_url)
125. *Erythridula vinaria* (Beamer, 1930) (Fig. 125)

*Erythroneura vinaria* Beamer, 1930b:426

*Erythroneura (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 fused together; abdomen dark dorsally.

**Type locality:** Holotype ♂, USA, Kansas, Anderson Co., 26 XI 1927 (Beamer), (KSEM).

**Distribution:** Central USA.

**Host plants:** *Tilia americana*.

126. *Erythridula atrimucronata* (Beamer, 1930) (Fig. 126)

*Erythroneura atrimucronata* Beamer, 1930b:424

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


*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*.

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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 crossection, 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.
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*.

129. **Erythridula gleditsia** (Beamer, 1930) (Fig. 129)

*Erythroneura gleditsia* Beamer, 1930b:437

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


*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.
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 toothlike; 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.

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Figure 130. *E. clavata* (DeLong).
131. **Erythridula quadrata** (Beamer, 1930) (Fig. 131)

*Erythroneura quadrata* Beamer, 1930b:435
*Erythroneura caldwelli* Johnson, 1935a:69, **syn.n.**
*Erythroneura (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 short, toothlike; distal processes short, similar to 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.](image)

132. **Erythridula juncea** (Beamer, 1937) (Fig. 132)

*Erythroneura juncea* Beamer, 1937a:10
*Erythroneura (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 distal 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.

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.

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.

---

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 134. *E. nava* (Beamer).](image)

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![Figure 135. *E. barbarae* (Hepner). a – holotype.](image)
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 para-type ♀ 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).

**ACKNOWLEDGMENTS**

For lending specimens, we are grateful to Norman Penny (California Academy of Sciences), K.G.A. Hamilton (Canadian National Collection, Ottawa), Boris Kondratieff (Colorado State University), Richard Brown (Mississippi State University), Stuart McKamey and Warren Steiner (National Museum of Natural History, Washington), Luciana Musetti and Creighton Freeman (Ohio State University), and Zachary Falin (University of Kansas). Stuart McKamey kindly provided access to his Leafhoppers of the World Database, which included much of the nomenclatural information incorporated into our Erythroneurini database. Unpublished drawings by L.W. Hepner included in this work are used with permission of the Mississippi Entomological Museum. Other previously published drawings reproduced in this work are in the public domain. This work was supported in part by NSF grants DEB0315373 and DEB050529679, and Hatch award ILLU-875-361 to CHD.
REFERENCES


## APPENDIX I

### Collections and Studied Material²

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²The table shows the number of studied specimens from each collection. See Materials and Methods for the museum abbreviations.
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