October 2011

New State Records and Distributional Notes for Some Assassin Bugs of the Continental United States (Heteroptera: Reduviidae)

D. R. Swanson

Follow this and additional works at: https://scholar.valpo.edu/tgle

Part of the Entomology Commons

Recommended Citation

Available at: https://scholar.valpo.edu/tgle/vol44/iss2/2

This Peer-Review Article is brought to you for free and open access by the Department of Biology at ValpoScholar. It has been accepted for inclusion in The Great Lakes Entomologist by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at scholar@valpo.edu.
New State Records and Distributional Notes for Some Assassin Bugs of the Continental United States (Heteroptera: Reduviidae)

D. R. Swanson

Abstract

One hundred sixty-eight new state records are presented for 51 species of assassin bugs found in the United States; distributional and taxonomic notes supplement the records. The current known distribution north of Mexico is provided for each species.

The Reduviidae is a large cosmopolitan group of predatory insects with the greatest diversity found in the tropics. Although the reduviids are not especially speciose in the Nearctic region, 11 subfamilies represented by approximately 150 species in 49 genera occur north of Mexico. Their predatory nature, as a general rule, makes them less common than other herbivorous insects. However, the propensity of many species for positive nocturnal phototaxis means they may be commonly encountered by humans. As it stands, the ranges of many are poorly known.

The author’s preliminary work in the family has uncovered a large number of records unreported in the literature. In an effort to augment the distributional knowledge for the group, 168 new state records for the assassin bugs of the United States are presented herein.

Materials and Methods

The author studied the reduviid holdings of five entomological collections, four in the Midwest and one in the Southeast. Unless otherwise noted, all specimens cited have been at least examined, if not determined, by the author. Also included are several records obtained via personal communication with Dr. Donald Chandler, University of New Hampshire Insect Collection, Durham, New Hampshire, and several records of specimens residing in the author’s personal collection.

The authority on which a state having a published record is based belongs to Froeschner (1988), and, in most cases, the record was affirmed with additional material or the original basis for Froeschner’s record was located. Froeschner’s accounts also are supplemented with references for those state records published after 1988, which includes several recent state surveys (McPherson 1992, Hagerty and McPherson 1999, Chordas III et al. 2005, Hoffman 2006, Chordas III et al. 2008).

All records pertain to specimens vouchered in one of the collections listed below. Label data were not copied verbatim although all locality information provided was included. Any additions, changes, or interpretive elements provided by the author are shown in brackets. In most cases, specimen counts are not included as the majority of localities are represented by a single specimen.

---

13111 Scenic Lake Dr. Apt. 34, Ann Arbor, MI 48108. (email: drswanny@gmail.com).
However, in many cases, multiple localities are included to fortify new records. Distributional or taxonomic notes are offered where deemed necessary. Following each species entry, the current distribution north of Mexico is listed with new state records shown in boldfaced type; abbreviations used for each U.S. state and Canadian province or territory follow the United States Postal Service and the Canadian Post Corporation, respectively.

Collections are designated as follows: Canadian National Collection of Insects, Ottawa, Canada (CNC); Daniel R. Swanson, personal collection (DRS); Florida State Collection of Arthropods, Gainesville, Florida (FSCA); Illinois Natural History Survey Insect Collection, University of Illinois, Champaign, Illinois (INHS); Albert J. Cook Arthropod Research Collection, Michigan State University, East Lansing, Michigan (MSU); North Carolina State University Insect Museum, Raleigh, North Carolina (NCSU); C. A. Triplehorn Insect Collection, Ohio State University, Columbus, Ohio (OSUC); University of Michigan Museum of Zoology Insect Collection, Ann Arbor, Michigan (UMMZ); and University of New Hampshire Insect Collection, Durham, New Hampshire (UNH).

**Results**

As a result of this investigation, 168 new state records for 51 species in 31 genera have been compiled. Many of these records merely fill in distributional gaps, whereas others offer significant range extensions. The following 35 states (plus District of Columbia) have new records: AL, AR, AZ, CA, CO, DE, FL, GA, IA, ID, IN, KS, KY, LA, MD, MN, MS, MT, NC, NE, NH, NM, NV, OH, OK, OR, PA, SC, TN, TX, UT, WA, WI, WV, WY.

New records are given for nine of the eleven subfamilies (excepting the Bactrodinae and Phymatinae) found within the United States. A brief note is provided for the Bactrodinae. The Phymatinae have been neglected due to the difficulty of identification and the uncertain identity of past records.

**Bactrodinae**

*Bactrodes spinulosus* Stål, 1862 – Originally described from Mexico, *B. spinulosus* has since been recorded from Puerto Rico, Guatemala, Panama, Colombia, and Venezuela (Stål 1862, Coscaron and Melo 2003). Only recently, Forero (2006) authored the first record of this species from the United States and in doing so, also reported the first U. S. record of the subfamily. Because the record is buried within a publication focused on the Neotropics, it is mentioned here. The specimen bears the following locality information: **TEXAS**: Big Bend N. P., Pulliam Canyon, 45–6500’, V–12–1959, W. P. M. Manson, 1 male (CNC). The author has not examined this specimen. Forero also cited additional specimens housed in the same institution from the states of Durango and Nuevo León in northern Mexico. It is reasonable to suppose that a population of *B. spinulosus* actually might occur in the southwestern United States, and so the species is included here as part of the U. S. fauna.

Distribution: TX

**Ectrichodiinae**

*Rhiginia cinctiventeris* (Stål), 1872 – Elliott (1938) reported *R. cinctiventris* from Louisiana, and Hussey (1954) reported it from Alabama; these records apparently were overlooked by Froeschner (1988). The specimen on which the latter record is based bears the following locality information: **ALABAMA**: Clarke Co., Salt Mountain, 6 mi. S. Jackson, May 1935, A. F. Archer, det. R. F. Hussey 1952 [1 male] (UMMZ).

Distribution: AL, LA, NM, TX.

Notes: Leonard (1928) reported R. cruciata from New York, a record apparently overlooked by Froeschner (1988). The above Kansas record represents the current northwestern extent of the range. In reference to the species’ occurrence in Oklahoma, Drew and Schaefer (1963) stated “We have one specimen in our collection; it has no label, but the distribution is such that the species probably occurs in Oklahoma.” Froeschner (1988) included Oklahoma in the distribution of R. cruciata. The author has examined the following specimen, thus confirming the species’ presence in that state: OKLAHOMA: Cleveland Co., 4 October 1947, S. Coppock (FSCA); the date is written illegibly and may represent an April collection, alternatively. This is also the westernmost record in the literature. The species likely will be collected in Arkansas, Delaware, Mississippi and West Virginia as it is known from the surrounding states.

Distribution: AL, FL, GA, IL, IN, KS, KY, LA, MD, MO, NC, NJ, NY, OK, PA, SC, TN, TX, VA.

Emesinae

Barce fraterna (Say), 1832 – ALABAMA: [Jefferson Co.], Birmingham, 14 June 1952, C. A. Triplehorn (FSCA).

Notes: McAtee and Malloch (1925) reported B. fraterna from District of Columbia and Iowa, and Harris and Shull (1944) reported it from Idaho; these records apparently were overlooked by Froeschner (1988). More recently, McPherson (1992) reported it from Michigan, Chordas III et al. (2005) reported it from Arkansas, and Maw et al. (2000) reported it from Alberta, British Columbia, New Brunswick, Nova Scotia, and Saskatchewan. Wygodzinsky (1966) gave characters for differentiating each of the subspecies of B. fraterna although he admitted the characters vary in each instance. He also pointed out that the genitalia remain essentially indistinguishable and concluded these taxa are no more than geographic races. The author has found it impractical to distinguish beyond the species level at this time and includes collectively the range of the three subspecies.

Distribution: USA: AL, AR, CA, CT, DC, FL, IA, ID, IL, IN, KS, LA, MA, MD, ME, MI, MO, NC, NH, NJ, NY, OH, OK, PA, TX, VA, WI; Canada: AB, BC, MB, NB, NS, ON, QC, SK.


Notes: The author has not examined the above specimens. McPherson (1992) reported B. uhleri from Michigan, and Maw et al. (2000) reported it from Ontario.

Distribution: USA: IA, IN, KS, MA, MI, MO, NC, NH, NJ, NY, OK, SD, VA; Canada: AB, ON, SK.

Empicoris culiciformis (DeGeer), 1773 – OHIO: [Franklin Co.], Columbus, 15 October 1951, H. V. Weems, Jr. (FSCA); TEXAS: [Kerr Co.], Kerrville, 25[?] June 1953, J. L. Bottimer (FSCA).
Notes: Smith (1910) reported *E. culiciformis* from New Jersey, McAtee and Malloch (1925) reported it from District of Columbia and Massachusetts, Harris and Shull (1944) reported it from Idaho, Sibley (1951) reported it from Louisiana, and Wygodzinsky (1953) reported it from North Carolina; these records apparently were overlooked by Froeschner (1988). More recently, McPherson (1991a, 1992) reported it from Michigan, and Maw et al. (2000) reported it from British Columbia and Ontario.

Distribution: USA: CT, DC, ID, LA, MD, MA, MI, NJ, NC, OH, OR, TX, VA; Canada: BC, ON.

**Empicoris errabundus** (Say), 1832 – **OHIO**: Delaware Co., 21 June 1943 [add. dates: 30 May, 5 July, 29 August], D. J. & J. N. Knoll Collrs. (OSUC).

Notes: Torre-Bueno (1923) reported *E. errabundus* from Connecticut, and McAtee and Malloch (1925) reported it from Georgia; these records apparently were overlooked by Froeschner (1988). Maw et al. (2000) reported it from British Columbia, Manitoba, and Nova Scotia. This taxon is treated *sensu* McAtee and Malloch (1925) rather than *sensu* Blatchley (1926); thus, the distribution encompasses those records of *Ploiariodes tuberculata* Banks, 1909.

Distribution: USA: CT, FL, GA, IL, KS, MA, MD, ME, MI, MO, NH, NY, OH, OR, PA, TX, VA, WA, WV; Canada: BC, MB, NS, ON, QC.


Distribution: USA: AZ, CA, FL, MA, MD, MI, MS, NV, OK, OR, TX, VA; Canada: BC.

**Empicoris rubromaculatus** (Blackburn), 1889 – **GEORGIA**: Thomas Co., Thomasville, at light, 23 April 1949, R. F. Hussey (UMMZ; FSCA).

Notes: Wygodzinsky (1953) reported *E. rubromaculatus* from Missouri, and Lattin and Wetherill (2001) reported it from Oregon.

Distribution: USA: CA, FL, GA, IN, MS, MO, NC, OR, TX, VA; Canada: BC.


Notes: Snoddy et al. (1976) reported *S. lanipes* from Georgia without providing specific locality information; a specimen examined by the author is provided here: **GEORGIA**: [Gordon Co.], Calhous [sic], 16 August 1949 (MSU). Hoffman (2006) reported this species from Virginia.

Distribution: FL, GA, MS, NC, SC, TX, VA.

Harpactorinae


Distribution: AZ, CA, CO, NM, UT.

**Acholla multispinosa** (DeGeer), 1773 – **KENTUCKY**: Jackson Co., 0.2 mi. NE Hwy. 421 on Elisha Branch Road, 28 July 2010, 37.4473°N 83.0132°W, 1020 ft., D. R. Swanson #30 [1 female] (DRS).

Notes: Parshley (1917) reported *A. multispinosa* from Connecticut and New Hampshire. The records from Arizona (Blatchley 1926) and Colorado
(Gillette and Baker 1895, Blatchley 1926) are omitted as no specimens have been examined from these states; the records may represent misidentifications of other congeners.

**Distribution:** USA: CT, IA, IL, IN, KS, KY, MA, ME, MI, MO, NC, NE, NH, NJ, NY, OH, PA, SD, TX, VA, WI, WV; Canada: ON.

**Apiomerus crassipes** (Fabricius), 1803 – **WEST VIRGINIA:** Greenbrier Co., Alvon, 18 June 1957, R. A. Scheibner (MSU); Webster Co., Cowen, July 1934 (MSU); Wetzel Co., Rockport, 11 June 1954, D. L. Haynes (MSU).

Notes: Smith (1910) reported *A. crassipes* from Pennsylvania, Elliott (1938) reported it from Louisiana, and McPherson (1992) reported it from Michigan. Berniker et al. (2011) revised the *crassipes* group of this large New World genus, and, in doing so, erected six new species. Four of the six new species are found in the United States, and western records formerly attributed to *A. crassipes* actually refer to *A. californicus* Berniker and Szerlip, 2011 or *A. montanus* Berniker and Szerlip, 2011. Thus, records listed by Froeschner (1988) for *A. crassipes* from Arizona, California, Colorado, New Mexico, Utah, and British Columbia are excluded. Berniker et al. (2011) added Alabama, Arkansas, District of Columbia, Delaware, Georgia, Iowa, Kentucky, Maryland, Mississippi, and Tennessee to the range.

**Distribution:** AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MN, MO, MS, NC, NE, NJ, NY, OH, OK, PA, TN, TX, VA, WV.

**Arilus cristatus** (Linnaeus), 1763 – **ARIZONA:** [Coconino Co.], Oak Cr. Can., 21 July 1950, D. J. & J. N. Knoll Collrs. (OSUC); **GEORGIA:** Harris Co., Pine Mountain, 3–7 August 1994, F. W. Stehr (MSU); **KENTUCKY:** Jackson Co., 0.2 mi. NE Hwy. 421 on Elisha Branch Road, 28 July 2010, 37.4473°N 83.0132°W, 1020 ft., D. R. Swanson #30 [1 female] (DRS); Jackson Co., 3.3 mi. E. McKeen on Hwy 421, Deerview Mart, 28 July 2010, 37.4309°N 83.9484°W, 1380 ft., D. R. Swanson #33 [1 female] (DRS); Jackson Co., 1.0 mi. E. McKeen on Hwy 421, Save–A–Lot, 28 July 2010, 37.4235°N 83.9815°W, 1070 ft., D. R. Swanson #35 [1 male, 1 female] (DRS); Jackson Co., McKee, jct. Hwy. 421 & First Street, lights, 28 July 2010, 37.4303°N 83.9977°W, 1030 ft., D. R. Swanson #36 [1 female] (DRS); Warren Co., Bowling Green, 9 August 1969, WNB[?] (INHS); **MISSISSIPPI:** Oktibbeha Co., Starkville, malaise trap, 21 August–3 Sept 1971, Clyde Sartor (FSCA); Warren Co., Vicksburg, 9 July 1971 [add. date: 23 July 1971], Coll. by John Boa, Collection of Bryant Mather (FSCA); **TENNESSEE:** Knox Co., Gilliland, 7 July 1964, George E. Klee (MSU); [Lincoln Co.], Flintville Fish Hatchery, 13 July 1946, C. Eckel (FSCA); Montgomery Co., Clarksville, at light, 13 August 1958, #20, T. H. Hubbell (UMMZ); **WEST VIRGINIA:** Pendleton Co., 13 mi. N. Franklin, 3 September 1973, J. B. Heppner, Coll. (FSCA).

Notes: Osborn and Drake (1915) reported *A. cristatus* from Ohio, and Elliott (1938) reported it from Louisiana; these records apparently were overlooked by Froeschner (1988). More recently, Chordas III et al. (2005) reported it from Arkansas, and Hoffman (2006) reported it from Virginia. Maw et al. (2000) reported it from Ontario. Being a well-documented species in the eastern states, it is worthwhile to consider how far west the range extends. As a new western limit is established here, the author thought it useful to include supplementary localities: **NEW MEXICO:** Grant Co., nr. cliff on Gila Riv., 28 May 1976, B. A. Triplehorn Collector (OSUC); Union Co., Capulin Mtn. Natl. Mon., 20 August 1972, alt. [illegible] met. (INHS).

**Distribution:** USA: AR, AZ, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MD, MS, MO, NC, NJ, NM, NY, OH, OK, PA, SC, TN, TX, VA, WV; Canada: ON.

**Castolus ferox** (Banks), 1910 – **IDAHO:** Owyhee Co., Bruneau Sand Dunes, 15-VI-10-IX-82, L. L. Lampert, blacklight trap [2 females] (FSCA); **NEW MEXICO:** Grant Co., 14 mi. N. Silver City, 7 July 1961, R. G. Tuck (MSU); **UTAH:** Washington Co., 5 mi. W. Rockville, 22 June 1982, B. M. O’Connor (UMMZ).
Notes: This species previously was known only from Arizona and western Texas; the new records mark a significant northward range extension.

**Distribution:** AZ, ID, NM, TX, UT.


Notes: The two species in this genus were treated recently (McPherson et al. 1992) and the distribution is preserved from that work. Parshley (1917) reported *F. aptera* from Vermont, and Wheeler, Jr. (2000) reported it from Maryland, Pennsylvania, Virginia, and West Virginia. However, the following state records are based on Froeschner (1988) and pre-1992 literature; thus, they may actually represent *F. spinosula* Stål, 1872: Colorado, Oklahoma, North Carolina, South Carolina, South Dakota, Utah, Vermont, and Alberta. The occurrence of *F. aptera* in Colorado is affirmed with the following specimen: **COLORADO**: [Weld Co.], Milliken, 23 June 1968, J. Matanzo Collector, det. J. Maldonado C. 1985, OSUC 372987 (OSUC). Despite the uncertainty, it seems both species are probably distributed widely in the continental United States.

**Distribution:** USA: AL, CO, CT, DC, FL, IL, IN, KS, MA, MD, ME, MI, MO, NC, ND, NH, NJ, NY, OH, OK, PA, SC, SD, TX, UT, VT, VA, WV; Canada: AB, NB, ON, QC.


Notes: The Florida record (Froeschner 1988) is questionable, and the source of this record could not be located. Members of *Heza Amyot & Serville, 1843* are known to occur throughout the Caribbean (Maldonado 1990), but a misidentification of *Rocconota annulicornis* (Stål), 1872 remains a distinct possibility.

**Distribution:** AZ, CA, FL, TX.


Notes: Torre-Bueno (1923) reported *P. barberi* from New York, and Blatchley (1926) reported it from Indiana. The locality data for some vouched specimens are included to affirm the latter record: **INDIANA**: [Kosciusko Co.], Winona Lake, summer 1910 (FSCA); [Parke Co.], Turkey Run, 6 June 1926, K. F. Auden (INHS); Tippecanoe Co., Intersection of S.R. 26 & 600W, 10 April 1977, M. Minno (FSCA). More recently, Chordas III et al. (2005) reported it from Arkansas.

**Distribution:** AR, IL, IN, KS, LA, MD, MO, NC, NY, OH, OK, SC, TN, TX, VA.

*Pselliopus cinctus* (Fabricius, 1776) – **ALABAMA**: Cleburne Co., Summit of Cheaha Mt., 5 July 1939, J. J. Friauf (UMMZ); **ARKANSAS**: Cleburne...
Notes: Sibley (1951) reported P. cinctus from Louisiana. The author has not examined the specimens from New Hampshire.

Distribution: AL, AR, CO, CT, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NH, NJ, NY, OH, OK, PA, RI, TN, TX, VA, WI, WV, WY.


Notes: The label on the Arkansas specimen reported above is printed with “Co. Texas, 1940”. “Ark.” is written clearly over the locality in blue ink; the last digit of the year is emended in the same manner. Because Arkansas lies within the known distribution of P. latifasciatus, the author has chosen to treat this specimen as a valid voucher for the state.

Distribution: AR, CO, FL, GA, LA, MD, MI, MO, OK, TX, VA.


Notes: On the above specimen, the author does not know if the quotation denotes the collector, the determination, or the collector’s determination.

Distribution: USA: AZ, CA, CO, ID, OR; Canada: BC.


Distribution: AZ, CA, NM.


Notes: Froeschner (1988) listed “Carolina” in the distribution of Repipta taurus, and Hoffman (2006) provided a North Carolina record. The species doubtlessly occurs in South Carolina and will eventually be collected there. The new records are expected based on the known occurrence in Louisiana and Florida. The Colorado record (Gillette and Baker 1895) is questionable, but R. taurus can be confused with few other species. The records for southern Illinois and Pennsylvania are interesting, and it remains to be seen how far north this species occurs.

Notes: Harris and Shull (1944) reported *R. ventralis* from Idaho, a record apparently overlooked by Froeschner (1988). McPherson (1992) reported it from Michigan, and Maw et al. (2000) reported it from Manitoba. The author has not examined the specimen from New Hampshire. Four subspecies are listed by Froeschner (1988), but Maldonado (1990) listed them all as junior synonyms of *R. ventralis* without justification. As an in-depth study is needed to determine the validity of these subspecies, the distribution given below refers to the collective complex.

**Distribution**: USA: AZ, CA, CO, ID, IL, IN, MA, ME, MI, MN, MO, MT, ND, NE, NH, NM, OK, OR, TX, UT, WA, WY; Canada: AB, BC, MB, SK.


Notes: Blatchley (1926) reported *R. annulicornis* from Maryland, and Sibley (1951) reported it from Louisiana; these records were apparently overlooked by Froeschner (1988). More recently, Hagerty and McPherson (1999) reported it from Illinois, Chordas III et al. (2005) reported it from Arkansas, and Hoffman (2006) reported it from Virginia. The new records are more or less within the expected range for the species. Hoffman (2006) stated the species must occur statewide in Kentucky and Tennessee, and a specimen confirming its presence in the latter state is presented above. Froeschner (1988) listed Kentucky among the distribution, and while the author has not seen specimens from that state, it undoubtedly occurs there, as Hoffman suggests. Additionally, *R. annulicornis* should occur in Delaware, Mississippi, South Carolina, and West Virginia.

**Distribution**: AL, AR, FL, GA, IL, IN, KY, LA, MD, NC, NJ, NY, OH, PA, TN, TX, VA.


**Distribution**: AZ, CO, UT.

**Notes:** Harris and Shull (1944) reported *S. confusa* from Idaho, a record apparently overlooked by Froeschner (1988). See notes under the following species.

**Distribution:** AZ, CA, CO, ID, MT, TX, UT.


**Notes:** Osborn (1900) reported *S. diadema* from Ohio, and Elliott (1938) reported it from Louisiana; these records apparently were overlooked by Froeschner (1988). Schaefer and Wolf (2003) reported it from Iowa and Texas, and Maw et al. (2000) reported it from Manitoba, New Brunswick, Northwest Territories, and Saskatchewan. This species is one of the most commonly encountered and widespread species in North America. It is known from 47 of the 48 contiguous United States; it is unreported from Wyoming. *Sinea diadema* is difficult to separate from the previous species without comparing the male genitalia (Schaefer and Wolf 2003). As such, *S. confusa* may have a more extensive range than previously thought, as some of the records for *S. diadema* may represent *S. confusa*. Despite this uncertainty, *S. diadema* probably still occurs transcontinentally in North America.

**Distribution:** USA: AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV; Canada: AB, BC, MB, NB, NS, NT, ON, QC, SK.


**Notes:** Elliott (1938) and Sibley (1951) reported *S. rileyi* from Louisiana. Misidentifications of species within the *spinipes* group are rather common, and this genus is in need of revision. The author has seen authentic *S. rileyi* specimens from Arizona, New Mexico, and Texas. The other records are based...
on literature published before 1951, excepting the Washington record (Schaefer and Wolf 2003), and may represent misidentifications.

**Distribution:** AZ, CA, FL, LA, NC, NM, TX, UT, WA.


Notes: Schaefer and Wolf (2003) reported *S. spinipes* from Connecticut and Iowa. As mentioned above, members of this species group often are misidentified. However, *S. spinipes* certainly is the most common species in the *spinipes* group, and the general range depicted by the distribution given below seems more or less accurate.

**Distribution:** AR, CO, CT, FL, GA, IA, IL, IN, KS, KY, LA, MO, NC, NE, NY, OH, OK, SD, TN, TX, VA, WI, WV.

**Zelus cervicalis** Stål, 1872 – GEORGIA: Bibb Co., Macon, 5 April 1923 [add. date: 6 April 1924], T. H. Hubbell (UMMZ); Decatur Co., Woodruff Dam, 23 May 1954 [add. date: 13 September 1954], R. F. Hussey (FSCA); Decatur Co., 4 mi. SW. Bainbge [sic], Ga97, 11 September 1954, R. F. Hussey (FSCA); Decatur Co., Dist. 21, Lot 423, 1 mi. N. state line, 8 June 1953, R. F. Hussey (FSCA); Decatur Co., Nr. Blue Spring, Dist. 21, Lot 337, 17 August 1953, F. N. Young (UMMZ); [Gordon Co.], Calhous [sic], 19 August 1949 (MSU); Mitchell Co., DeWitt, 19 June 1915, C. S. Spooner (INHS); [Thomas Co.], Thomasville, 30 May 1915 [add. date: 23 June 1915], C. S. Spooner (INHS); [Troup Co.], La Grange, 19 June 1954, R. L. Fischer (MSU); MISSISSIPPI: Harrison Co., Handsboro, 17 August 1944, Pierce Brodkorb, [add. dates: 25 August 1944, 29 August 1944, 4 September 1944] (UMMZ); [Lafayette Co.], Oxford, 2 May 1949, H. V. Weems, Jr. (FSCA); TENNESSEE: Shelby Co., Millington, 7 September 1970 [add. date: 29 September], R. V. Dowell (OSUC).

Notes: Chordas III et al. (2005) reported *Z. cervicalis* from Arkansas. The California record (Van Duzee 1917) probably is erroneous and thus, not included here for the time being. The author is of the opinion that Hart (1986) may have inappropriately synonymized *Zelus pictipes* Champion, 1899 under *Z. cervicalis*. In addition to the femoral markings, Hart remarked that there are significant differences in leg length/body length ratios and several differences in the male genitalia; both are characters Hart used to diagnose *Zelus* species in his key. Hart also admitted he did not know whether the western population is isolated from the eastern one in Mexico. The author has not investigated the situation in enough detail to offer a more concrete conclusion and intends only to convey some doubt. In any event, it seems improbable that *Z. cervicalis sensu* Hart will be found in western Texas or New Mexico; the Arizona record refers to a disjunct population previously known as *Z. pictipes*.

**Distribution:** AR, AZ, FL, GA, IA, MO, MS, NC, OK, SC, TN, TX, VA.

**Zelus luridus** Stål, 1862 – ARIZONA: [Pima or Santa Cruz Cos.], Santa Rita M., 24 June 1939, D. J. & J. N. Knoll Collrs. [1 female] (OSUC); [Graham...
Notes: Osborn (1900) reported *Z. luridus* from Ohio, and Parshley (1917) reported it from Massachusetts; these records apparently were overlooked by Froeschner (1988). Although Froeschner (1988) reported this species from California, the occidental extension of several typically eastern elements presented in this work necessitates the inclusion of the following corroborative records: **CALIFORNIA**: [Mariposa Co.], Clark's Station, 4100 ft., 9 May [18]79, Andreas Bolter Collection (INHS); [Mariposa Co.], Yosemite Valley, 4000 ft., 10 May [18]79, Andreas Bolter Collection (INHS).

Distribution: USA: AL, AR, AZ, CA, CO, CT, DE, FL, GA, IA, ID, IL, IN, KS, KY, LA, MA, ME, MD, MI, MN, MO, MS, NC, NE, NH, NJ, NM, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, WV, WY; Canada: MB, ON, QC.

**Zelus renardii** Kolenati, 1856 – **ARKANSAS**: Ouachita Co., Camden, 0.3 mi S. Hwy. 24, night lights, 31 August 2010, 33.5810°N 92.8343°W, #54, 130 ft., D. R. Swanson (DRS); **NEW MEXICO**: Lincoln Co., Ruidoso, 2 July 1961, G. C. Eickwort (MSU); [San Miguel Co.], Las Vegas, Andreas Bolter Collection (INHS).

Notes: The Arkansas record represents the easternmost record of this species. Knowlton and Harmston (1940) reported *Z. renardii* from Utah, and Werner and Butler, Jr. (1957) reported it from Arizona; these records apparently were overlooked by Froeschner (1988).

Distribution: AR, AZ, CA, KS, LA, NM, TX, UT.


Notes: Sibley (1951) reported *Z. tetracanthus* from Louisiana; the record apparently was overlooked by Froeschner (1988). More recently, Maw et al. (2000) reported it from Manitoba, New Brunswick, Nova Scotia, and Saskatchewan. The author has not examined the specimens from New Hampshire. Much variation exists in the color pattern of this species and many of these forms were accorded specific status at one time. Hart (1986) synonymized most of these forms, presumably although not explicitly stated, based on the near identical male genitalia. It seems probable that this species is found continent-wide in the United States.

Distribution: USA: AL, AZ, CA, CO, CT, FL, ID, IL, IN, KS, LA, MA, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NM, NY, OK, SD, TN, TX, UT, VA, WI, WY; Canada: AB, BC, ON, QC.
Microtominae

*Microtomus purcis* (Drury), 1782 – TENNESSEE: Obion Co., Reelfoot Lake, 4 September 1919, F. M. Gaige (UMMZ); WEST VIRGINIA: [Huntington Co.], Huntington, 26 October 1907, Coll. by: G. A. Akerlind (UMMZ).

Notes: Froeschner (1944) reported *M. purcis* from Missouri, Hagerty and McPherson (1999) reported it from Illinois, Chordas III et al. (2005) reported it from Arkansas, and Hoffman (2006) reported it from Virginia. The author could not locate the source of the Colorado record cited by Froeschner (1988); it seems doubtful. The species undoubtedly occurs in Kentucky and Mississippi and eventually should be collected there.

Distribution: AL, AR, CO, FL, GA, IL, IN, LA, MD, MO, NC, OK, SC, TN, TX, VA, WV.

Peiratinae


Notes: Osborn and Drake (1915) reported *M. picipes* from Ohio; this record apparently was overlooked by Froeschner (1988). More recently, McPherson et al. (1991) reported it from Arizona, McPherson (1992) reported it from Michigan, Chordas III et al. (2005) reported it from Arkansas, and Hoffman (2006) reported it from Virginia. Another widely distributed species, *M. picipes* probably occurs transcontinentally in North America. Froeschner (1988) listed *Melanolestes abdominalis* (Herrich-Schaeffer), 1846 as a valid species but McPherson et al. (1991) showed that *M. abdominalis* was a synonym of *M. picipes*. The author agrees with Hoffman (2006) in rejecting the purported occurrence of *M. picipes* in the Nearctic Region as stated by Coscaron and Carpintero (1994) in their revision of the genus. The specimens examined by the author support Hoffman’s conclusion.

Distribution: USA: AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, NH, NJ, NM, NY, OH, OK, PA, RI, SC, SD, TN, TX, UT, VA, WV; Canada: QC.

Notes: Elliott (1938) reported R. hamatus from Louisiana; this record apparently was overlooked by Froeschner (1988). More recently, Hagerty and McPherson (1999) reported it from Illinois, Chordas III et al. (2005) reported it from Arkansas, and Hoffman (2006) reported it from Virginia.

Distribution: AR, FL, IL, KS, LA, MO, MS, NC, OK, SC, TN, TX, VA.


Distribution: AZ, CA, NM, NV, TX.


Notes: Drew and Schaefer (1963) reported this peiratine from Oklahoma, Willemsse (1985) reported it from Kentucky and Maryland, and Chordas III and Kremers (2009) reported it from Arkansas. Willemsse (1985) is followed regarding its taxonomic status.

Distribution: AR, FL, GA, IL, IN, KS, KY, LA, MD, MI, MO, NC, NJ, OH, OK, SC, TX, VA.

Reduviinae


Notes: Previously, P. arizonicus has been recorded only from Arizona, and the above data represent significant extensions to the North and to the East. This species has been collected most commonly from the mountains of southeastern Arizona, particularly the Huachucas, and the localities above all affirm an affinity for montane habitats.

Distribution: AZ, ID, TX, UT.

Reduvius personatus (Linnaeus), 1758 – GEORGIA: Lumpkin Co., Dahlonega, 7 June 1923, F. W. Walker (UMMZ); IOWA: [Story Co.], Ames, April 1931, H. M. Harris (MSU); KENTUCKY: Jackson Co., McKe, jct. Hwv. 421 & First Street, lights, 11 June 2011, 37.4303°N 83.9977°W, #30, 1030 ft., D. R. Swanson: New State Records and Distributional Notes for Some Assassin Bugs 2011

Notes: Previously, P. arizonicus has been recorded only from Arizona, and the above data represent significant extensions to the North and to the East. This species has been collected most commonly from the mountains of southeastern Arizona, particularly the Huachucas, and the localities above all affirm an affinity for montane habitats.

Distribution: AZ, ID, TX, UT.

Notes: Harris and Shull (1944) reported *R. personatus* from Idaho, Sibley (1951) reported it from Louisiana, Wygodzinsky and Usinger (1964) reported it from Arizona, California, Nevada, Oregon, and Washington, and Eads and Campos (1983) reported it from Colorado; these records apparently were overlooked by Froeschner (1988). More recently, Hoffman (2006) reported it from Virginia, and Maw et al. (2000) reported it from New Brunswick. As a predator of bed bugs, *R. personatus* is commonly synanthropic. Originally an Old World species, this now cosmopolitan bug should be found transcontinentally in the United States. Known from 41 of the 48 contiguous United States, it is unreported from Arkansas, Delaware, Minnesota, Mississippi, Montana, North Dakota, and Rhode Island.

Distribution: USA: AL, AZ, CA, CO, CT, FL, GA, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, NC, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY; Canada: BC, NB, ON, QC.

Saucinia

*Oncerotrachelus acuminatus* (Say), 1832 –GEORGIA: [Gordon Co.], Calhous [sic], 29 August 1949 (MSU); Whitfield Co., Dalton, at lights, 4 August 1995, D. Yanega (INHS); KENTUCKY: Jackson Co., 3.3 mi. E. McKee on Hwy 421, Deerview Mart, 28 July 2010, 37.4209°N 83.9484°W, 1380 ft., D. R. Swanson #33 [2 females] (DRS); Jackson Co., 1.0 mi. E. McKee on Hwy 421, Save–A–Lot, 28 July 2010, 37.4325°N 83.9815°W, 1070 ft., D. R. Swanson #35 [2 males, 4 females] (DRS).

Notes: Sibley (1951) reported *O. acuminatus* from Louisiana, McPherson (1992) reported it from Michigan, Hoffman (2006) reported it from Virginia, and Chordas III et al. (2008) reported it from Ohio.

Distribution: AL, DC, DE, FL, GA, IL, IN, KS, KY, LA, MA, MD, MI, MN, MO, NC, NJ, NY, OH, OK, PA, SC, TX, VA.


Notes: The new record represents a significant inland extension for this species. When Blinn (1990) erected the new genus, he added the Mississippi data in addition to Barber’s holotype. The Virginia record cited by Froeschner (1988) for *Saica florida* Barber, 1914 actually represents another saucine species (Blinn 1994).

Distribution: FL, KY, MS.
Stenopodainae

*Diaditus semicolon* Stål, 1859 – Blinn (2009) reported specimens of *D. semicolon* from Cecil County, Maryland (NCSU) and Palm Beach County, Florida (FSCA) as “new distribution records for this species.” Each of these records is represented by a single individual and the author has seen the specimen deposited in FSCA. The Maryland record probably is based on an adventitious individual; it is unlikely that a Neotropical species would be established in the northeastern United States. The situation is not as clear-cut with the Florida record as the state is notorious for the entry of Neotropical species. Blinn (2009) also reported a single specimen from Isabela, Puerto Rico, which may lend support to the idea of a Caribbean extension. However, as *D. semicolon* is otherwise known only from South America (Argentina, Bolivia, Brazil, Uruguay, Venezuela) and now Panama (an additional, entirely plausible record provided by Blinn), it seems premature to suggest that this reduvid has become established in the United States. Further doubt is cast on the suggestion because some species of *Diaditus* are known to come readily to lights and thus, are encountered more frequently (see below). Until additional specimens are collected, *D. semicolon* should be considered a strictly Central and South American species.


Notes: The range of *D. tejanus* has been the subject of several short papers since its description. McPherson et al. (1995) extended the range from Alvin, Texas, to Highlands and Gadsden Counties, Florida, supplemented with specimens from Hancock County, Mississippi. Blinn (2009) added Alabama and Georgia to the list, while providing additional specimens from Florida and Mississippi. McPherson et al. (1995) suggested that *D. tejanus* may be restricted by coastal factors; Blinn (2009), based on his findings, agreed with the hypothesis. In addition to those from Arkansas, the author has collected specimens at various localities in Texas that show *D. tejanus* is not limited to the coastal plain: TEXAS: Bosque Co., Meridian, 0.2 NE. on Hwy. 22, Family Dollar, 1 Sept. 2010, 31.9172°N 97.6633°W, #60, 760 ft., D. R. Swanson [4 males, 1 female] (DRS); Bosque Co., Laguna Park, 0.1 mi. NE. on Hwy. 22, 1 September 2010, 31.8591°N 97.3774°W, #61, 590 ft., D. R. Swanson [1 male] (DRS); Clay Co., Henrietta, Church of Christ on Hwy. 82, 2 September 2009, 33.8159°N 98.2067°W, #121, 930 ft., D. R. Swanson [2 females] (DRS); Clay Co., Henrietta, 1.3 mi. E. hospital on Hwy. 82, 2 September 2009, 33.8163°N 98.1749°W, #126, 875 ft., D. R. Swanson [5 males, 2 females] (DRS); Jack Co., Jacksboro, 0.3 mi. E. Hwy. 148 jct. on 281, 2 September 2009, 33.2248°N 98.1583°W, #128, 1060 ft., D. R. Swanson [2 males, 2 females] (DRS); Real Co., Leakey, Texaco gas station on Hwy. 83, 7 September 2009, 29.7141°N 99.7629°W, #162, 1590 ft., D. R. Swanson [1 male] (DRS). *D. tejanus* seems to be a fairly widespread, common assassin bug. It readily comes to lights and may occur in numbers when encountered. It will be interesting to see how far north, both inland and along the eastern coast, the range of this species extends.

Distribution: AL, AR, FL, GA, LA, MS, SC, TX.

*Narvesus carolinensis* Stål, 1859 – CALIFORNIA: Imperial Co., Fort Yuma, 9 September 1926, C. L. Hubbs, [22 males, 5 females] (UMMZ); [Imperial Co.], 2 mi. N. U.S. 80 on road to Ogilby (13 mi. W. Yuma AZ) on desert flat, 20

Notes: Blatchley (1926) reported *N. carolinensis* from Indiana, Readio (1927) reported it from Kansas, Sibley (1951) reported it from Louisiana, and Giacchi (1974) reported it from New Mexico; these records apparently were overlooked by Froeschner (1988). More recently, McPherson (1992) reported it from Michigan.

**Distribution:** AZ, CA, DC, FL, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, NM, OH, OK, SC, TN, TX, VA.

---


Notes: Blatchley (1926) reported *O. geniculatus* from Alabama, Sibley (1951) reported it from Louisiana, and Barber (1930) reported it from Maryland, New Jersey, and Tennessee; these records apparently were overlooked by Froeschner (1988). More recently, Hagerty and McPherson (1999) reported this stenopodaine from Illinois, Chordas III et al. (2005) reported it from Arkansas, and Hoffman (2006) reported it from Virginia. This species may be difficult to separate from *O. apiculatus* Reuter, 1882, known from Illinois (Malloch 1920), Kansas (Blatchley 1926), Missouri, and Texas. However, the distribution given below should still be accurate.

**Distribution:** AL, AR, AZ, CO, FL, GA, IL, KS, LA, MD, MO, MS, NC, NJ, NM, OK, SC, TN, TX, VA.

---

**Pnirotis infirma** Stål, 1859 – **DISTRICT OF COLUMBIA**: 18 May, Herbert Osborn Collection (OSUC); **MISSISSIPPI**: Harrison Co., Handsboro, 16 June 1944 [add. dates: 24 June 1944, 18 August 1944], Pierce Brodkorb (UMMZ); [Harrison Co.], Biloxi, 9 October 1945, J. T. Polhemus (FSCA); **OHIO**: [Franklin Co.], Columbus, (OSUC); [Hardin Co.], McGuffy, July 1944, C. R. Neiswander Collr. (OSUC); **SOUTH CAROLINA**: Beaufort Co., Hardeeville, 25 September 1930, T. H. Hubbell (UMMZ); Beaufort Co., 1.1 mi. N. Limehouse (US17), 20 August 1947, T. H. Hubbell (UMMZ).

Notes: Froeschner (1988) gave “Carolina” as part of the distribution and the author has provided locality data for South Carolina. Blatchley (1926) reported *P. infirma* from Alabama, and Sibley (1951) reported it from Louisiana; these records apparently were overlooked by Froeschner (1988).

**Distribution:** AL, DC, FL, GA, IL, LA, MS, NJ, OH, SC, TX.

Notes: Elliott (1938) reported *P. languida* from Louisiana, Hagerty and McPherson (1999) reported it from Illinois, and Hoffman (2006) reported it from Virginia.

Distribution: AR, FL, GA, IL, LA, NC, OK, SC, TX, VA.


Distribution: AR, DC, FL, GA, IL, IN, KY, MD, MI, MO, NC, OH, SC, TN, TX, VA.


Distribution: USA: AR, AZ, CA, CO, CT, DE, FL, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, NE, NH, NJ, NY, OH, OK, SC, TN, TX, VA; Canada: AB, MB, NB, ON, QC.


Notes: The author has examined only those specimens represented by the above data. Maw et al. (2000) reported *P. sericea* from British Columbia, Ontario, and Quebec; the British Columbia record is of particular interest as, at present, an eastern distribution within North America north of Mexico seems attributable to the species. Parshley (1917) reported *P. sericea* from New Hampshire, and McPherson (1992) reported it from Michigan. Hoffman (2006) stated his previous Virginia record (Hoffman, 1953) was based on a misidentification and that no authentic Virginia records were known; thus, it is not included. Elliott (1938) reported this species from Louisiana, although Sibley (1951) never found *P. sericea*, despite collecting large numbers of *P. pectoralis*. Sibley also noted that the specimen on which Elliott’s record was based had been destroyed. Similarly, Readio (1927) reported *S. sericea* from Texas, but Elkins (1951) never saw specimens from Texas. However, the Louisiana and Texas records are retained as there is no evidence to suggest the original records were spurious.

Distribution: USA: FL, IL, IN, LA, MA, MD, MI, NC, NE, NH, NY, PA, SC, TX; Canada: BC, ON, QC.


Notes: This species was reported from Kentucky and Virginia by Giacchi (1988) and from Michigan by McPherson (1992). Previously, this species was included under *S. culiciformis* (Fabricius), 1775 and *S. cinerea* Laporte, 1833; Giacchi (1969) revised the genus and described *S. spinulosa* for the species commonly found in the United States.

Distribution: USA: AL, AR, FL, GA, IL, IN, KS, KY, LA, MI, MO, MS, NC, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WV; Canada: NB.

Triatominae

*Triatoma longipennis* Usinger, 1939 – No member of the *phyllosoma* complex, the group to which *T. longipennis* belongs, is known to occur in the United States. Uhler (1876) reported “Meccus phyllosoma” from “near San Diego” in California although the color character mentioned (“deep black… the only red present is upon the outer edge of the abdomen”) precludes the *phyllosoma* complex. Two specimens of *T. longipennis*, a male and a female, were found among
material borrowed from the Illinois Natural History Survey (INHS). The male has a printed label which reads only “Tex.” and no determination label is present. The female has no locality label and two separate determination labels, one erroneously indicating the genus “Pirates” and the other indicating a misidentification of the triatomine species, [Conorhinus] “dimidiatus”. A printed label with “Andreas Bolter Collection” is found on both specimens. Based on examinations by the author, the Andreas Bolter Collection contains material presumably collected from the late nineteenth and early twentieth century with locality labels typical of the kind found on the aforementioned specimens. *Triatoma longipennis* is known to occur in the Mexican states of Aguascalientes, Chihuahua, Colima, Jalisco, Nayarit, Sinaloa, and Zacatecas (Lent and Wygodzinsky 1979), and thus, the species’ occurrence in Texas is not inconceivable. However, the author is hesitant to report a new United States record because, to the author’s knowledge, no other individuals of this large, conspicuous species have been taken in the United States. This is particularly troubling when one considers that *T. longipennis* is a member of a well-studied subfamily infamous for hematophagy and as potential disease vectors; this notoriety has made the triatomines the focus of intensive collecting efforts and biogeographical studies (i.e. Ryckman 1962, Lent and Wygodzinsky 1979). An additional concern is the sparse and potentially spurious nature of the label. The possibility of adventitious specimens also remains. Given these doubts, the author excludes *T. longipennis* from the reduviid fauna of the United States until corroborative material is examined or collected.

*Triatoma sanguisuga* (LeConte), 1855 – WEST VIRGINIA: [Barbour Co.], Philippi, At Arcs, 10 June 1909 (INHS).

Notes: Blatchley (1926) reported *T. sanguisuga* from New Jersey; this record apparently was overlooked by Froeschner (1988). The Arizona record (Froeschner 1988) is excluded as it represents *Triatoma indictiva* Neiva, 1912, a species previously afforded subspecific rank under *T. sanguisuga*. The area of overlap between these species is shown by Lent and Wygodzinsky (1979).

Distribution: AL, AR, FL, GA, IL, IN, KS, KY, LA, MD, MO, MS, NC, NJ, OH, OK, PA, SC, TN, TX, VA, WV.

Acknowledgments

I thank Mark O’Brien, Insect Division, UMMZ, for his support of my entomological projects, his sponsorship regarding loaned material, and his always helpful advice regarding preparation of the manuscript. My thanks also to the collections managers and curators under whose charge I was able to peruse several collections: Gary Parsons, Albert J. Cook Arthropod Research Collection, MSU; Luciana Musetti, C. A. Triplehorn Insect Collection, OSUC; Dmitry Dmitriev, Illinois Natural History Survey, INHS; and Susan Halbert, Florida State Collection of Arthropods, FSCA. I also am grateful to Donald Chandler, University of New Hampshire Insect Collection, UNH, and Thomson Paris, Florida State Collection of Arthropods, FSCA, for communications regarding additional specimen data. I thank Steve Chordas III, Ohio State University, for his kind correspondence regarding several reduviid state records. I am particularly grateful to J. C. Jones and M. Brummermann, each for a donation of several reduviid specimens.

Literature Cited


Leonard, M. D. 1928. A list of the insects of New York with a list of the spiders and certain other allied groups. Ithaca: The University. 1121 pages.


Osborn, H. 1900. A list of Hemiptera collected in the vicinity of Bellaire, Ohio. The Ohio Naturalist 1: 11-12.


