

**Distributional and biological notes on North American Buprestidae
(Coleoptera), with comments on variation in *Anthaxia (Haplanthaxia)*
cyanella Gory and *A. (H.) viridifrons* Gory**

TED C. MACRAE

Monsanto Company, 700 Chesterfield Parkway West,
Chesterfield, Missouri 63017-1700, U.S.A.
e-mail: ted.c.macrae@monsanto.com

Abstract. Distributional and biological notes are presented for 164 species and subspecies of North American Buprestidae in the genera *Acmaeodera* Eschscholtz, *Acmaeoderopsis* Barr, *Acmaeoderoides* Van Dyke, *Actenodes* Dejean, *Agrilaxia* Kerremans, *Agrilus* (s. str.) Curtis, *Anthaxia (Haplanthaxia)* Reitter, *Brachys* Dejean, *Buprestis* (s. str.) Linnaeus, *Buprestis (Knulliobuprestis)* Kurosawa, *Chalcophora* Dejean, *Chrysobothris* (s. str.) Eschscholtz, *Cypriacis* (s. str.) Casey, *Dicerca* (s. str.) Eschscholtz, *Lampetis (Spinthoptera)* Casey, *Mastogenius* (Solier), *Pachyschelus* Solier, *Paragrilus* Saunders, *Paratyndaris (Knulliella)* Cobos, *Phaenops* Megerle, *Poecilnota* Eschscholtz, *Polycesta (Arizona)* Cobos, *Polycesta (Tularenia)* Nelson, *Ptosima* Dejean, *Spectralia* Casey, *Texania* Casey, *Trigonogya* Schaeffer, and *Xenorhipis* LeConte. New records include 39 distributions, 131 larval hosts, 63 adult hosts, 101 flower hosts, and one oviposition host. Comments on or corrections to previous literature records are made for several species. Detailed comments are provided on color variation within *Anthaxia (Haplanthaxia) cyanella* Gory and *A. (H.) viridifrons* Gory.

Key Words. Coleoptera, Buprestidae, North America, host association, distribution, *Anthaxia* variation.

In the notes that follow, all taxa are listed alphabetically, with new or confirmed distributional and host plant records indicated in **bold**. Larval hosts are plants from which adults were reared or cut, adult hosts are those on which adults were collected but not reared or cut, flower hosts are those on the flowers of which adults were found feeding, and oviposition hosts are those on which adult females were observed ovipositing. For consistency and to minimize ambiguity, all dates are formatted as day.month (lower case Roman numerals).year and are followed by number of specimens in (parentheses)—e.g., 6.vii.1999 (9). All collections are by the author unless indicated otherwise, and specimens remain with the collector or as specified in [brackets] (Evenhuis & Samuelson 2004, or as listed in the acknowledgments). For brevity, the following abbreviations are used when citing label data: CA = Conservation Area; coll. = collected; Cpgd = Campground; Cyn = Canyon; diam. = diameter; elev = elevation; em. = emerged; ex = out of; Hwy = Highway; Jct = junction; Mt = Mountain; Mts = Mountains; NA = Natural Area; NF = National Forest; NP = National Park; NRA = National Recreation Area; NSR = National Scenic Riverway; NWR = National Wildlife Refuge; PA = Primitive Area; RA = Recreation Area; Rt = Route; SGA = State Game Area, SP = State Park; SRA = State Recreation Area. Plant nomenclature follows Kartesz & Meacham (1999).

I dedicate this paper to the late Dr. Gayle H. Nelson, one of North America's foremost buprestid authorities during the past half century. He was not only my mentor but a true friend, and the kindness and generosity he showed me during my early years did much to solidify my passion for buprestids. I had the good fortune to accompany him in the field on numerous occasions, where diligence and persistence

were but a few of the many important lessons he taught me. I offer the present work in the tradition of his long running series of "notes" papers.

Acmaeodera (s. str.) *alicia* Fall, 1899. ARIZONA, Pima Co., 26.5 km SSW Three Points, Rt 286 at Cerro Prieto Wash, 31°50'57" N 111°23'55" W, 10.viii.2001 (1), beaten from dead branch *Prosopis glandulosa* Torr. (Fabaceae), R. Androw & R. Davidson [RAAC]; Santa Margarita Wash on Hwy 286, 30 mi S Robles Jct, 19.viii.1995 (1), on flower *Hymenothrix* sp. (Asteraceae), M. S. Arduser [TCMC]. Adults have been reared from *Parkinsonia florida* (Benth. ex Gray) S. Wats. [= *Cercidium torreyanum*] (Knull 1937c) and *Acacia willardiana* Rose (both Fabaceae) (Westcott et al. 1979).

Acmaeodera (s. str.) *amabilis* Horn, 1878. ARIZONA, Maricopa Co., Sunflower, 29.x.1978 (2), on flower *Baccharis salicifolia* (Ruiz & Pavón) Pers. (Asteraceae), W. B. Warner [TCMC]; NEW MEXICO, Rio Arriba Co., Carson NF, 2 mi N Hwy 64 on Rd 310, elev 8000', on flower *Chrysothamnus* sp. (Asteraceae), M. S. Arduser [TCMC]. Adults have been recorded on *Alnus incana* (L.) Moench (Betulaceae) (Chamberlin 1926) and flowers of several other plants (Westcott et al. 1979).

Acmaeodera (s. str.) *ampliocollis* LeConte, 1866. Adults have been associated with flowers of many plants (Westcott et al. 1979), to which the following can be added: ARIZONA, Cochise Co., Huachuca Mts, Miller Cyn, 26.viii.1991 (45), on flower *Heterotheca subaxillaris* (Lam.) Britt. & Rusby (Asteraceae); Santa Rita Mts, Madera Cyn, 21.viii.1959 (30), on flower *Helianthus nuttallii* Torr. & Gray (Asteraceae), G. H. Nelson [FSCA, TCMC].

Acmaeodera (s. str.) *angelica* Fall, 1899. CALIFORNIA, Fresno Co., 4 mi E Friant Dam, Table Mt Road, 15.v.1993 (10), beaten from *Frangula californica* ssp. *cuspidata* (Benth.) Kartesz & Gandhi (Rhamnaceae); Sacramento Co., American River Parkway, 0-4 mi NE Nimbus Dam, 26.v.1991 (4), on flower *Phacelia imbricata* Greene (Hydrophyllaceae); San Bernardino Co., San Gabriel Mts, 2 mi NE Wrightwood, 22-24.vi.1991 (2), beaten from dead branch *Fremontodendron californicum* (Torr.) Coville (Sterculiaceae). Adults have been recorded on flowers of and reared from a variety of shrubs and trees (Chamberlin 1917b, 1926; Beer 1940, 1944; Westcott et al. 1979; Westcott 2001b).

Acmaeodera (s. str.) *atactospilota* Westcott, 1971. CALIFORNIA, Mono Co., 2.3 mi W Benton Hot Springs on Hwy 120, elev 6100', 20.viii.1995 (1), on stem living *Ephedra nevadensis* S. Wats. (Ephedraceae). Westcott (1971, 1979) recorded larvae breeding in *E. viridis* Coville and adults visiting a variety of flowers.

Acmaeodera (s. str.) *bowditchi* Fall, 1901. Chamberlin (1926) recorded this species on *Quercus arizonica* Sarg. (Fagaceae), and several flower hosts have also been recorded (Westcott et al. 1979, Westcott 2001b). The following records document additional flower hosts and the first reported larval host: TEXAS, Jeff Davis Co., Davis Mts Resort, 4.6 mi W Hwy 166, elev 5800', 19.vi.1994 (1), on flower *Erigeron traceyi* Greene (Asteraceae); Davis Mts SP, Limpia Cyn PA, elev 5050', 17.vi.1994 (1), on flower *Tetranneuris scaposa* var. *scaposa* (DC.) Greene (Asteraceae); same locality, em. 24-31.v.2002 (1) ex dead branch *Quercus pungens* var. *vaseyana* (Buckl.) C. H. Muller coll. 24.x.2001.

Acmaeodera (s. str.) *condita* Barr, 1972. NEVADA, Clark Co., 15 mi W Hwy 95 on 157, 29.vi.2001 (2), on flower *Eriodictyon* sp. (Hydrophyllaceae), J. M. & J. P. Davidson [& TCMC]. Barr (1972) recorded adults on flowers of *Cowania stansburiana* (Torr.) Henrickson and *Rosa* sp. (both Rosaceae).

Acmaeodera (s. str.) *connexa* LeConte, 1859. CALIFORNIA, Inyo Co., 2.3 mi W Hwy 395 on Cottonwood Road, 30.v.1993 (1), on flower *Sphaeralcea ambigua* Gray (Malvaceae); San Bernardino Co., San Gabriel Mts, Lone Pine Cyn, 7 mi SE Wrightwood, 24.vi.1991 (2), beaten from dead branch *Cercocarpus montanus* var. *glaber* (S. Wats.) F. L. Martin (Rosaceae). Adults have been collected on a variety of flowers but reared only from *Quercus* spp. (Chamberlin 1924, 1926; Beer 1940; Westcott et al. 1979).

Acmaeodera (s. str.) *convicta* Fall, 1899. ARIZONA, Pima Co., 26.5 km SSW Three Points, Rt 286 at Cerro Prieto Wash, 31°50'57" N, 111°23'55" W, 10.viii.2001 (1), beaten from dead branch *Prosopis glandulosa*, R. Androw & R. Davidson [TCMC]. No other hosts have been recorded for this species other than on flowers of *Allionia incarnata* L. and *Boerhavia coccinea* P. Mill. (both Nyctaginaceae) (Bellamy 1982).

Acmaeodera (s. str.) *cuneata* Fall, 1899. Adults have previously been reported on *Alnus tenuifolia* and at flowers of *Fallugia paradoxa* (D. Don) Endl. ex Torr. (Rosaceae) (Chamberlin 1926, Westcott 2001b). ARIZONA, Gila Co., near Globe, Icehouse Cyn, 10.vi.1963 (4), on flower *Sphaeralcea* sp., G. H. Nelson [FSCA]; Sixshooter Cyn, 8–9.vi.1963 (10), on flower *Sphaeralcea* sp., G. H. Nelson [FSCA]; Horton Creek, 3 mi N Kohls Ranch, 4.vi.1978 (4), on flower *Senecio* sp. (Asteraceae), W. B. Warner [& TCMC]; Mojave Co., Hualapai Mts, Rd from Kingman, 4–6.vii.1985 (4), on flowers *Eriodictyon angustifolium* Nutt. & *Purshia stansburiana* (Torr.) Henrickson (Rosaceae), G. H. Nelson [FSCA, TCMC]; Pima Co., Santa Catalina Mts, Sabino Cyn, 10.iv.1964 (1), on flower *Encelia farinosa* Gray ex Torr. (Asteraceae), G. H. Nelson [FSCA]; Yavapai Co., 6 mi S Prescott, 28–30.vi.1964 (33), on flower *Sphaeralcea* sp., G. H. Nelson [FSCA].

Acmaeodera (s. str.) *delumbis* Horn, 1894. TEXAS, Brewster Co., Big Bend NP, Castolon, vic. maintenance shed, 23.x.2001 (1), dead adult cut ex dead branch *Prosopis glandulosa*; Big Bend NP, Tornillo Flat, Hwy 385 at Fossil Bone Exhibit, em. 18.viii–15.ix.2002 (2) ex dead branch *Acacia constricta* Benth. coll. 23.x.2001. Adults have been previously collected on both of these plants (Westcott et al. 1979), and the above records confirm their status as larval hosts.

Acmaeodera (s. str.) *deviata* Barr, 1972. CALIFORNIA, Riverside Co., Santa Rosa Mts, 13.1 mi S Palm Desert on Hwy 174, 25.v.1995 (1), on flower *Eriogonum fasciculatum* Benth. (Polygonaceae). Adults have also been collected on flowers of several other plants but reared only from *Juniperus californica* Carr. (Cupressaceae) (Barr 1972).

Acmaeodera (s. str.) *dolorosa dolorosa* Fall, 1899. CALIFORNIA, Colusa Co., 1.0–1.5 mi NE Jct Hwys 20 & 16, 30.iv.1994 (1), on flower *Eriophyllum lanatum* var. *achillaeoides* (DC.) Jepson (Asteraceae); Placer Co., Auburn SRA, 1–4 mi SE Auburn, 1.vi.1991 (3) on flowers *Eriodictyon californicum* (Hook. & Arn.) Torr. & *Eriophyllum lanatum* var. *grandiflorum* (Gray) Jepson; San Bernardino Co., San Gabriel Mts, 2 mi SE Wrightwood, 22.vi.1991 (14), on flower *Eriodictyon trachocalyx* Heller. Adults have been reared from *Arctostaphylos viscida* Parry (Ericaceae), *Prunus fasciculata* (Torr.) Gray (Rosaceae), and *Simmondsia chinensis* (Link) Schneid. (Simmondsiaceae) (Beer 1944, Westcott et al. 1979).

Acmaeodera (s. str.) *flavomarginata* (Gray, 1832). TEXAS, Hidalgo Co., Bentsen-Rio Grande Valley SP, 9–10.x.1985 (13), on flower *Helianthus annuus* L.; Santa Ana NWR, vic. Pintail Lake on Trail C, 18.x.2001 (3), on flower *H. annuus*; Zapata Co.,

Falcon Lake SP, along N portion of Nature Trail, em. 1–31.x.2003 (1) *ex* dead branch *Acacia rigidula* Benth. coll. 20.x.2001. Adults have previously been recorded on flowers of several other plants but reared only from *Diospyros texana* Scheele (Ebenaceae) (Westcott et al. 1990, Westcott 2001b).

Acmaeodera (s. str.) *gibbula* LeConte, 1858. Van Pelt (1999) listed this widespread southwestern U.S. species from Big Bend NP, but at least some of those records apparently refer to *A. delumbis* Horn, which was listed as a synonym of *A. gibbula*. Its occurrence there and additional larval and flower hosts are confirmed by the following records: ARIZONA, Maricopa Co., Painted Rock Road, ~1 mi N Jct Sisson Road, 13.xi.2005 (1), dead adult cut *ex* borer-riddled dead branch *Olneya tesota* Gray (Fabaceae), R. L. Westcott (specimen not retained); TEXAS, Brewster Co., Big Bend NP, Persimmon Gap, 22.vi.2003, on flowers *Bahia absinthifolia* Benth., *B. pedata* Gray & *Ratibida columnaris* (Sims) D. Don. (all Asteraceae); Boquillas Cyn Trail, em. 11–20.vii.2004 (2) *ex* dead branch *Parkinsonia aculeata* L. coll. 11.iv.2004; Val Verde Co., 8.7 mi N Comstock on Hwy 162, 16.vi.1994 (2), on flower *Englemannia pinnatifida*. The species has been reared also from *Acacia greggii*, *Parkinsonia florida*, *Prosopis glandulosa*, and *Salix goodingii* (Knull 1937c, Van Dyke 1942, Westcott et al. 1979, Nelson & MacRae 1990).

Acmaeodera (s. str.) *gillespiensis* Knull, 1941. TEXAS, Jeff Davis Co., Davis Mts, 11.3 mi W Ft. Davis, Hwy 166 picnic area, elev 5540', 20–24.vi.1994 (4), on flowers *Convolvulus equitans* Benth. (Convolvulaceae), *Helenium amarum* var. *badium* (Gray *ex* S. Wats.) Waterfall (Asteraceae), *Sphaeralcea* sp., & *Tetraneuris scaposa* var. *scaposa*; Davis Mts Resort, Limpia Cyn along Yellow Knife Trail, elev, 5700', 19.vi.1994 (9), on flower *Opuntia imbricata* (Haw.) DC. (Cactaceae); Davis Mts Resort, 4.6 mi W Hwy 166, elev 5800', 19.vi.1994 (9), on flowers *Erigeron traceyi* Greene, *Xanthisma spinulosum* var. *scabrellum* (Greene) D. R. Morgan & R. L. Hartman, & *Thelesperma simplicifolium* Gray (all Asteraceae); Davis Mts SP, Limpia Cyn PA, 17.vi.1994 (5), on flowers *Ratibida columnifera* (Nutt.) Woot. & Standl., *Sphaeralcea* sp., & *T. scaposa* var. *scaposa*. Westcott et al. (1979) recorded this species from flowers of several other plants, but larval hosts remain unknown.

Acmaeodera (s. str.) *haemorrhoea* LeConte, 1858. TEXAS, Hidalgo Co., Bentsen-Rio Grande Valley SP, 9–11.x.1985 (12), on flower *Helianthus annuus*; Santa Ana NWR, vic. area headquarters, 18.x.2001 (4), on flower *H. annuus*. *Viguiera stenoloba* Blake and *Tithonia rotundifolia* (P. Mill.) Blake (both Asteraceae) have also been recorded as flower hosts for this species (Westcott et al. 1979, 1990).

Acmaeodera (s. str.) *hepburnii* LeConte, 1860. CALIFORNIA, Placer Co., Auburn SRA, 1–2 mi SE Auburn, 4.v.1991 (8), on flowers *Castilleja lineariloba* (Benth.) Chuang & Heckard (Scrophulariaceae), *Erigeron foliosus* var. *hartwegii* (Greene) Jepson, & *Gilia capitata* Sims (Polemoniaceae); San Bernardino Co., San Gabriel Mts, 2 mi NE Wrightwood, 22.vi.1991 (8), on flower *Eriodictyon trachocalyx* & beaten from dead branch *Fremontodendron californicum*; Solano Co., Putah Creek below Lake Berryessa, 27.iv.1991 (4), on flowers *Achillea* sp. (Asteraceae) & *Eriodictyon californicum*. A great number of other flower hosts have also been recorded for this species (Chamberlin 1926, Beer 1944, Westcott et al. 1979), which is known to breed in *Pyrus communis* L. (Rosaceae) and several *Quercus* spp. (Chamberlin 1926).

Acmaeodera (s. str.) *idahoensis* Barr, 1969. CALIFORNIA, Alpine Co., 3 mi W Woodfords on Hwy 88, Horsethief Cyn Trail, 15.vii.1994, on flower *Wyethia mollis*

Gray (Asteraceae). Many additional flower hosts and several larval hosts have been recorded for this species (Barr 1969, 1971; Westcott et al. 1979).

Acmaeodera (s. str.) *ligulata* Cazier, 1940. ARIZONA, Maricopa Co., Camp Creek, 8.v.1980 (2), on flower *Echinocereus* sp. (Cactaceae), W. B. Warner [TCMC]. Many additional flower hosts have been recorded for this species, which has so far been reared only from *Quercus* spp. (Cazier 1940, Westcott et al. 1979).

Acmaeodera (s. str.) *linsleyi* Van Dyke, 1943. CALIFORNIA, Riverside Co., above Palm Desert on Hwy 74, 4.vi.1968 (4), on flower *Salvia apiana* Jepson (Lamiaceae), G. H. Nelson [FSCA, TCMC]; Santa Rosa Mts, 2.4 mi NE Pinyon Flats on Hwy 74, 25.v.1995 (3), on flower *Eriogonum fasciculatum* var. *foliolosum* (Mutt.) S. Stokes ex Abrams; Pinyon Flats, Jct Jeraboa & Indio Roads, 6.vi.1994 (1), on flower *Encelia virginiensis* var. *actonii* (Elmer) B. L. Turner. Adults have also been recorded on flowers of *Sphaeralcea emoryi* Torr. ex Gray and reared from *Quercus dumosa* Nutt. (Van Dyke 1943, Nelson 1962).

Acmaeodera (s. str.) *macra* Horn, 1878. TEXAS, Hidalgo Co., Bentsen-Rio Grande Valley SP, 9–10.x.1985 (2), on flower *Helianthus annuus*. This uncommon species has been collected on *Acacia berlandieri* Benth. and flowers of *Grindelia* sp., *Helianthus* sp., and *Verbesina encelioides* (Cav.) Benth. & Hook. f. ex Gray (all Asteraceae) (Westcott et al. 1979, Westcott 2001b).

Acmaeodera (s. str.) *maculifera* Horn, 1894. NEW MEXICO, Otero Co., 5.2 mi E Three Rivers, 25.ix.1999 (10), on flower *Baileya multiradiata* Harvey & Gray ex Gray (Asteraceae), J. P. & J. M. Davidson [& TCMC]; TEXAS, Brewster Co., Big Bend NP, Cottonwood Cpgd, 23.x.2001 (8), on flower *Sphaeralcea angustifolia* ssp. *cuspidata* (Gray) Kearney. Larval and adult hosts remain unknown for this handsome species other than flowers of *Biglowia* sp. (Asteraceae) (Chamberlin 1926), *Chrysothamnus viscidiflorus* ssp. *puberulus* (D.C. Eat.) Hall & Clements, *Helianthus petiolaris* Nutt., and *Sphaeralcea* sp. (Westcott et al. 1979).

Acmaeodera (s. str.) *mariposa dohrni* Horn, 1878. CALIFORNIA, San Bernardino Co., San Gabriel Mts, 2 mi NE Wrightwood, 22.vi.1991 (1), beaten from *Purshia glandulosa* Curran. Adults have also been collected on *Adenostoma fasciculatum* Hook. & Arn. (Rosaceae), *Ceanothus crassifolius* Torr. (Rhamnaceae), and *Cercocarpus montanus* var. *glaber* (Nelson 1959, Westcott & Nelson 2000), but larval hosts have not yet been reported.

Acmaeodera (s. str.) *miliaris* Horn, 1878. No larval hosts are known for this species, which has been collected on *Acacia constricta*, *Mimosa* sp. (Fabaceae), and flowers of *Viguiera stenoloba* (Westcott et al. 1979). Additional flower hosts include the following: TEXAS, Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, elev 5050', 17.vi.1994 (1), on flower *Ratibida columnifera*; 11.3 mi W Ft. Davis, Hwy 166 picnic area, elev 5540', 20.vi.1994 (2), on flower *R. columnifera*; Val Verde Co., 11.6 mi W Comstock, Hwy 90 at Pecos River, 13–16.vi.1994 (36), on flowers *Xanthisma spinulosum* var. *scabrellum*, *Porophyllum* sp. (prob. *scoparium* Gray), & *Simsia calva* (Engelm. & Gray) Gray (all Asteraceae).

Acmaeodera (s. str.) *mixta* LeConte, 1860. Numerous flower hosts have been recorded for this common southwestern U.S. species, but it has been reared only from *Prosopis glandulosa* (Westcott et al. 1979, Van Pelt 1999, MacRae & Nelson 2003). Additional larval and flower hosts are documented in the following records: TEXAS, Cameron Co., Boca Chica SP, tidal flat W of coastal dune, em. 1.vi–10.vii.2004 (40) ex dead stem *Avicennia germinans* (L.) L. (Verbenaceae) coll.

5.iv.2004; Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, 17.vi.1994 (26), on flowers *Penstemon barbatus* (Cav.) Roth (Scrophulariaceae), *Sphaeralcea* sp., *Tetraneuris scaposa* var. *scaposa*, & *Thelesperma simplicifolium*; same locality, em. 1–15.vii.2003 (2) ex dead branch *Acacia greggii* Willd. coll. 24.x.2001.

Acmaeodera (s. str.) *neglecta* Fall, 1899. ARKANSAS, Pulaski Co., N Little Rock, Camp Robinson, 3–4.vii.2002 (2), intercept trap, B. Baldwin [UAAM]; TEXAS, Brewster Co., Big Bend NP, Castolon, vic. N of Cottonwood Cpgd, cut 23.x.2001 (2) & em. 1.v–24.vi.2002 (10) ex dead stem *Zizyphus obtusifolia* (Hook. ex Torr. & Gray) Gray (Rhamnaceae) coll. 23.x.2001. Adults have been collected on *Quercus alba* L. (MacRae 1991) and reared from *Q. pungens* and *Ulmus crassifolia* Nutt. (Ulmaceae) (Westcott et al. 1979, MacRae & Nelson 2003).

Acmaeodera (s. str.) *neoneglecta* Fisher, 1949. TEXAS, Hidalgo Co., Santa Ana NWR, vic. Pintail Lake on Trail C, em. 1–11.vii.2002 (2) ex dead branch *Acacia farnesiana* (L.) Willd. coll. 18.x.2001. A wide variety of plants have been recorded as larval hosts for this south Texas species (Westcott et al. 1979, Boldt & Robbins 1987, Hovore & Penrose 1982, Westcott 1991, MacRae & Nelson 2003).

Acmaeodera (s. str.) *obtusa* Horn, 1878. TEXAS, Uvalde Co., 4.5 mi N Concan on Hwy 83, 21.v.1995 (1), on flower *Calylophus berlandieri* ssp. *pinifolius* (Engelm. ex Gray) Towner (Onagraceae); Zavala Co., Crystal City on Hwy 163, 20.v.1995 (1), on recently bulldozed *Prosopis glandulosa*. No other hosts have been recorded except flowers of *Opuntia engelmannii* var. *lindheimeri* (Engelm.) Parfitt & Pinkava (Vogt 1949).

Acmaeodera (s. str.) *opuntiae* Knull, 1966. The type series of this early spring species was collected on cactus flowers (*Opuntia engelmannii* var. *lindheimeri*) (Knull 1966), and Westcott (2001b) recently reported *Karwinskia humboltiana* (J. A. Schultes) Zucc. (Rhamnaceae) as a larval host. The following records document additional flower and larval hosts: TEXAS, Starr Co., Rio Grande City, Las Estrellas, 29.iv.2004 (4), on flower *Astrophytum asterias* (Zucc.) Lem. (Cactaceae) (a federally endangered plant), A. W. Strong [TAMU & TCMC]; same data as previous except M. Alvarez Ranch, 2.iv–1.v.2005 (49); Zapata Co., Falcon Lake SP, along N portion of Nature Trail, cut 20.x.2001 (1) & em. 8–17.vi.2002 (1) ex dead branch *Parkinsonia texana* var. *texana* (Gray) S. Wats. coll. 20.x.2001. The Zapata Co. specimens, both females, are the largest I have seen (5.7 and 5.6 mm in length, respectively) and have the ground color of the elytra scarcely lighter than the pronotum, resembling *A. neoneglecta*. However, the specimens agree with the Starr Co. series and Knull's original description in all other respects, including vestiture and punctuation.

Acmaeodera (s. str.) *ornata* (Fabricius, 1775). FLORIDA, Polk Co., 3 mi SE Haines City, Lake Marion Estates, 25.iv.1996 (1), on flower *Opuntia* sp., R. Androw & R. Morris [RAAC]; MISSOURI, Barry Co., Roaring River CA, T22N R27W S36, 26.v.1996 (1), on flower *Leucanthemum vulgare* Lam. (Asteraceae); Franklin Co., Shaw Nature Reserve, vic. trailhouse, T43N R2E S17 (SW¼), 19.v.2002 (1), on flower *Oenothera macrocarpa* ssp. *macrocarpa* Nutt. (Onagraceae). This common eastern U.S. species has been collected on a wide variety of flowers (Nelson 1987, MacRae 1991).

Acmaeodera (s. str.) *ornatoides* Barr, 1972. TEXAS, Uvalde Co., 4.5 mi N Concan on Hwy 83, 21.v.1995 (88), on flower *Calylophus berlandieri* ssp. *pinifolius*; 5.5 mi N Concan on Hwy 83, 16.vi.1994 (9), on flower *Lygodesmia texana* (Torr. & Gray) Greene (Asteraceae). Adults have also been collected on flowers of *Callirhoe* sp.

(Malvaceae) and *Opuntia* sp. (Barr 1972) and reared from *Quercus fusiformis* Small and *Diospyros texana* (Westcott et al. 1979, Westcott 2001b).

Acmaeodera (s. str.) *paradisjuncta* Knull, 1940. TEXAS, Brewster Co., Big Bend NP, Sotol Vista, elev 4480', 23.iv.1994 (1), on flower *Porophyllum* sp. Adults have been collected on several other flowers, but *Dasyilirion* sp. (Agavaceae) is the only recorded larval host (Westcott et al. 1979).

Acmaeodera (s. str.) *princeps* Kerremans, 1908. The following records include the first reported larval hosts for this species: TEXAS, Zapata Co., Falcon Lake SP, vic. W end of Nature Trail, cut 19.v.1995 (2) & em. 19–31.v.1995 (1) *ex* dead branch *Parkinsonia aculeata*; Falcon Lake SP, along N portion of Nature Trail, em. 1.viii–15.x.2002 (11) *ex* dead branch *Parkinsonia texana* var. *texana* coll. 20.x.2001. A potential larval host and another flower host are indicated by the following records: TEXAS; Brewster Co., Big Bend NP, lower Pine Cyn, base of Nugent Mt, 23.vi.2003 (1), ovipositing on trunk dead *Diospyros texana*; Val Verde Co., 8.7 mi N Comstock on Hwy 163, 16.vi.1994 (14), on flower *Engelmannia pinnatifida* Gray *ex* Nutt. (Asteraceae).

Acmaeodera (s. str.) *prorsa* Fall, 1899. CALIFORNIA, San Bernardino Co., San Gabriel Mts, 2 mi NE Wrightwood, 22.vi.1991 (14), on flower *Eriodictyon trichocalyx*. Westcott et al. (1979) recorded this species on flowers of *Rosa californica* Cham. & Schlecht., *Salvia* sp., and *Turricula parryi* (Gray) J. F. Macbr. (Hydrophyllaceae).

Acmaeodera (s. str.) *pubiventris lanata* Horn, 1880. CALIFORNIA, San Bernardino Co., San Gabriel Mts, 2 mi NE Wrightwood, 22.vi.1991 (4), on flower *Eriodictyon trichocalyx* & beaten from dead branch *Fremontodendron californicum*. This widespread subspecies has been collected on or associated with flowers of a wide variety of plants but appears to be restricted to *Ephedra* spp. for larval development (Westcott 2001a).

Acmaeodera (s. str.) *pulchella* (Herbst, 1801). MacRae (1991) reported a specimen collected on flowers of *Ludwigia alternifolia* L. (Onagraceae), but this specimen is actually *A.* (s. str.) *texana* LeConte (see below).

Acmaeodera (s. str.) *quadriseriata* Fall, 1899. No host information has previously been recorded for this species. CALIFORNIA, Kern Co., 5 mi N Kernville, 18.vi.1961 (1), on flower *Eriogonum fasciculatum*; Riverside Co., Pinyon Flat, 25.vi.1986 (1), 26.v.1990 (1) & 31.v–29.vi.1995 (2), on flower *E. fasciculatum*; 31.v.1995 (1), on flower *Encelia virginiensis* var. *actonii*; San Bernardino Co., Cajon Pass, 29.v.1962 (4), on *Quercus wislizenii* A. DC.; 11.vi.1962 (5), 10.vi.1985 (2) & 24.v.1986 (3), on *Quercus dumosa*; 1–26.vi.1985 (22), on *Quercus berberidifolia* Liebm. & flower *E. fasciculatum*; 16.vi.1988 (1), on *Prunus ilicifolia* (Nutt. *ex* Hook. & Arn.) D. Dietr.; San Gabriel Mts, Glendora Ridge Road, 1 mi above Mount Baldy Village, 17.v.1981 (1), on flower *Ceanothus oliganthus* Nutt.; 19.v.1985 (1), on flower *Ceanothus leucodermis* Greene; 22.vii.1985 (2), on flower *Salvia apiana*; 26.v.1986 (3), on flower *Eriophyllum confertiflorum* (DC.) Gray; 8.vi.1991 (1), on flower *Eriodictyon trichocalyx*; Glendora Ridge Road near Jct. E. Fork Road, 18.vii.2001 (2), on flower *Heterotheca fastigiata* (Greene) Harmes; 2 mi E Wrightwood, 17.vi.1984 (4), on flower *Lotus scoparius* (Nutt.) Ottley (Fabaceae); 4 mi S Camp Angelus, 28.vi.1958 (1), on flower *C. oliganthus*; 5 mi N Upland, 20.vi.1962 (2), on flower *Ceanothus crassifolius*; 14 mi NW Idyllwild, 15.v.1954 (1), on flower *Ceanothus greggii* ssp. *perplexans* (Trel.) Beauchamp; San Jacinto Mts, Hwy 74

above Hemet, 17–20.vi.1992 (3), on *Q. berberidifolia* & flower *L. scoparius*; Swarthout Valley, 13.v.1962 (1), on flower *C. oliganthus*; San Diego Co., Oak Grove, 24.vi.1962 (1), on flower *L. scoparius* (all collections G. H. Nelson [FSCA, TCMC]).

Acmaeodera (s. str.) *quadrivittata* Horn, 1870. CALIFORNIA, Riverside Co., 2.4 mi NE Pinyon Flats on Hwy 74, 25.v.1995 (1), on flower *Encelia virginensis* var. *actonii*; San Bernardino Co., 3 mi WSW Valley View Ranch near Dear Spring, 29.v.1993 (10), on flower *Opuntia* sp. Adults have been reported on a wide variety of flowers but reared only from *Yucca* spp. (Nelson & Westcott 1995, Westcott 1991, Westcott 2001b).

Acmaeodera (s. str.) *quadrivittatoides* Nelson & Westcott, 1995. ARIZONA, Maricopa Co., Camp Creek, 8.v.1980 (2), on flower *Echinocereus* sp., W. B. Warner [TCMC]; TEXAS, Brewster Co., Big Bend NP, Sotol Vista Scenic Overlook, elev 4480', 23.vi.1994 (9), on flowers *Croton pottsii* (Klotzsch) Muell.-Arg. (Euphorbiaceae), *Echinocereus* sp., *Machaeranthera gracilis* (Nutt.) Shinnery, & *Porophyllum* sp. Nelson & Westcott (1995) reported a wide variety of adult and flower hosts for this species and regarded flower stalks of *Yucca* spp. and related plants as possible larval hosts.

Acmaeodera (s. str.) *retifera* LeConte, 1859. CALIFORNIA, Fresno Co., 4 mi E Friant Dam, Table Mt Road, 15.v.1993, on flower *Lupinus benthamii* Heller (Fabaceae); OREGON, Jackson Co., 8 mi NE Gold Hill, 9.vii.1969 (3), R. L. Westcott; Josephine Co., 10 mi N Grants Pass, 24.vi.1970 (1), beaten from *Ceanothus cuneatus* (Hook.) Nutt. (Rhamnaceae), R. L. Westcott. Adults have also been reported on flowers of *Eriophyllum lanatum* (Pursh) Forbes and *Rosa pisocarpa* Gray and reared from *Quercus garryana* Dougl. ex Hook. (Beer 1944).

Acmaeodera (s. str.) *rubronotata* Laporte & Gory, 1835. ARIZONA, Cochise Co., Huachuca Mts, Rd 61 between Copper Cyn & Montezuma Pass, elev 6500', 6.viii.1998 (1), on flower *Lasianthaea podocephala* (Gray) K. Becker (Asteraceae); Huachuca Mts, Miller Cyn, 26.viii.1991 (14), on flower *Heterotheca subaxillaris*; NEW MEXICO, Rio Arriba Co., Carson NF, 2 mi N Hwy 64 on Rd 310, elev 8000', 7.viii.2000 (5), on flower *Chrysothamnus* sp., M. S. Arduser [TCMC]. Westcott et al. (1979) recorded *Quercus* sp. as a larval host and a great variety of plants as flower hosts.

Acmaeodera (s. str.) *solitaria* Kerremans, 1897. ARIZONA, Cochise Co., Huachuca Mts, Rd 61 between Copper Cyn & Montezuma Pass, elev 6500', 6.viii.1998 (1), on flower *Lasianthaea podocephala*; Miller Cyn, 26.viii.1991 (19), on flowers *Heterotheca subaxillaris* & *Tephrosia* sp. (poss. *thurberi* (Rydb.) C. E. Wood) (Fabaceae); Pima Co., Santa Rita Mts, Madera Cyn, 24.viii.1991 (12), on flowers *Abutilon* sp. (Malvaceae) & *Mimosa dysocarpa* Benth. The species has also been recorded on flowers of *Allionia incarnata* and *Boerhavia coccinea* (Bellamy 1982).

Acmaeodera (s. str.) *texana* LeConte, 1860. MISSOURI, Ste. Genevieve Co., Hawn SP, 28.vii.1984 (1), on flower *Ludwigia alternifolia* [erroneously recorded as *A. pulchella* (Herbst) in MacRae (1991)]. Adults have been recorded on a variety of flowers (Nelson 1987, MacRae 1991) across the southeastern U.S. north to Illinois and Missouri and west to Oklahoma and Texas, but larval hosts remain unknown. Westcott et al. (1979) regarded the occurrence of this species in Arizona as doubtful, and records of it from Baja California (Chamberlin 1926) are certainly in error.

Acmaeodera (s. str.) *tiquilia* Westcott & Barr, 1998. TEXAS, Brewster Co., Big Bend NP, lower Pine Cyn, 0.7 mi W Glenn Springs Road, 12.iv.2004 (1), cut *ex* stem base of living *Ephedra aspera* Engelm *ex* S. Wats. This record (from near the type locality) further emphasizes the close relationship of the species to *A.* (s. str.) *recticollis* Fall, which also breeds in *Ephedra* spp. (Westcott & Barr 1998). Adults of *A. tiquilia* have previously been reported from flowers of *Tiquilia greggii* (Torr. & Gray) A. Richards. (Boraginaceae) and *T. canescens* (DC.) A. Richards. (Westcott & Barr 1998).

Acmaeodera (s. str.) *tubulus* (Fabricius, 1801). This polyphagous species has been reared from or taken on plants in several families (Knull 1920, 1922; Wellso 1973; Westcott et al. 1979; MacRae 1991; MacRae & Nelson 2003). Additional larval and flower hosts include the following: MISSOURI, Barry Co., Roaring River SP, Chute Ridge Glade, T22N R27W S36 (SE¼), 23.vi.2002 (2), on flower *Ruellia humilis* Nutt. (Acanthaceae); Carter Co., Ozark NSR, Big Spring Cpgd, em. 1–17.iv.2004 (2) *ex* dead branch *Betula nigra* L. (Betulaceae) coll. 21.iii.2004; St. Louis Co., Clarkson Valley, Jct Orville & Shepard Roads, em. 3–23.v.1998 (2) *ex* dead branch *Carya ovata* (P. Mill.) K. Koch (Juglandaceae). As currently understood, this species occurs in the eastern U.S. west to eastern Texas. Records of its occurrence in Arizona, Idaho, Nevada, New Mexico (Chamberlin 1926) surely represent misidentifications.

Acmaeodera (s. str.) *vulturei* Knull, 1938. CALIFORNIA, Riverside Co., 2.4 mi NE Pinyon Flats on Hwy 74, 25.v.1995 (1), on flower *Encelia virginiensis* var. *actonii*. The only other adult hosts recorded for this species are *Eriogonum fasciculatum* and *Quercus* sp. (Barr 1941) and *Quercus berberidifolia* (Westcott 2005).

Acmaeodera (s. str.) *wenzeli* Van Dyke, 1919. The following apparently represents the first larval host record for the species: TEXAS, Brewster Co., Big Bend NP, Chisos Mts Basin, upper Window Trail, em. 1–10.vii.2004 (1) *ex* dead branch *Acacia constricta* coll. 12.iv.2004; Big Bend NP, Tornillo Flat, Hwy 385 at Fossil Bone Exhibit, em. 1–17.viii.2002 (1) *ex* dead branch *A. constricta* coll. 23.x.2001. Adults have previously been collected on this plant and on *A. farnesiana* (Westcott et al. 1979, Van Pelt 1999).

Acmaeodera (s. str.) *xanthosticta* Laporte & Gory, 1835. FLORIDA, Monroe Co., Crawl Key, 12–21.vii.1972 (26), on flower *Laguncularia racemosa* Gaertn. f. (Combretaceae), R. L. Westcott; Dry Tortugas, Bush Key, 13.vii.1963 (2), “at” *Suriana maritima* L. (Surianaceae), H. V. Weems, Jr. [RLWE]; Key Largo, Tavernier, 19.vi.1970, “flying to” *Conocarpus erecta* L. (Combretaceae), G. H. Nelson [FSCA, TCMC]; same locality, 11.vii.1972 (17), on flower *L. racemosa*, R. L. Westcott; Lower Matecumbe Key, 11.vii.1972 (2), on flower *L. racemosa*, R. L. Westcott. These represent the first reported hosts for this species.

Acmaeoderoides stramineus Nelson, 1968. CALIFORNIA, Imperial Co., Imperial Sand Dunes, 6.8 mi W Glamis, 1.vii.1993 (4), on flower *Palafoxia arida* var. *gigantea* (M. E. Jones) B. L. Turner & Morris (Asteraceae). Nelson (1968b, 2000) also reported *Eriogonum deserticola* S. Wats. (Polygonaceae) and *Tiquilia plicata* (Torr.) A. Richards. as flower hosts.

Acmaeoderopsis chisosensis (Knull 1952). Adults have been collected on *Acacia constricta*, *A. farnesiana* and *Prosopis glandulosa* (Nelson & Westcott 1976, Westcott 1990, Van Pelt 1999), but the following are apparently the first larval host records for the species: TEXAS, Brewster Co., Big Bend NP, Chisos Mts Basin, upper Window Trail, em. 24.vii–15.ix.2002 (10) *ex* dead branch *Acacia constricta* coll. 22.x.2001 &

1–10.vi.2004 (3) *ex* dead branch *A. constricta* coll. 12.iv.2004; Big Bend NP, lower Pine Cyn, 0.7 mi W Glenn Springs Road, 12.iv.2004 (1), cut *ex* dead branch *A. constricta*. Davidson & Davidson (2005) noted the species appears to be restricted to Texas, but it has in fact been recorded from the Mexican states of Chihuahua, Durango, and Zacatecas (Nelson et al. 1981, Westcott 1990).

Acmaeoderopsis hualpaiana (Knull, 1952). CALIFORNIA, Riverside Co., 3 mi S Palm Desert on Hwy 74, 26.vi.1991 (1), beaten from *Acacia greggii*. Adults have been reared from *Prosopis* sp. (Nelson et al. 1981).

Acmaeoderopsis hulli (Knull, 1928). NEW MEXICO, Eddy Co., 5–10 mi S Carlsbad, em. 1–31.v.1991 (1) *ex* dead branch *Celtis* sp. (Ulmaceae) coll. 25–27.ix.1990, Androw & Brattain [RAAC]. Adults have been collected previously on several other plants but reared only from *Prosopis glandulosa* and *Quercus* sp. (Nelson & Westcott 1976).

Actenodes acornis (Say, 1839). This species occurs commonly throughout eastern North America but to my knowledge has not been recorded from the following states: KANSAS, Douglas Co., N38.80970 W95.20939, 16.vi.2005 (1), canopy trap, S. White [KSUC]; TENNESSEE, Warren Co., McMinnville, Tennessee State University Nursery Crop Research Station, 12–19.vi.2001, sticky trap; 35°42'28" N 85°44'40" W, 24.vii.2003 [RLWE, TSRS]. It has been reared from a variety of plant genera (Knull 1920, Wellso 1973, Nelson & MacRae 1990, Nelson et al. 1996, MacRae & Nelson 2003) but seems associated most frequently with *Acer* spp. (Aceraceae) and *Carya* spp. An additional larval host in the latter genus is represented by the following: MISSOURI, Crawford Co., Blue Spring Creek CA, T39N R2W S5 (SE¼), em. 16–23.v.2001 (1) *ex* dead branch *Carya laciniosa* (Michx. f.) G. Don coll. 29.iv.2001.

Actenodes calcaratus (Chevrolat, 1835). TEXAS, Cameron Co., Brownsville, Audubon Sabal Palm Sanctuary, Resaca Loop Trail, em. 1–30.ix.2004 (3) & 15.viii–16.x.2005 (1) *ex* large dead branch *Leucaena pulverulenta* (Schlecht.) Benth. (Fabaceae) coll. 6.iv.2004. Other recorded larval hosts include *Parkinsonia florida*, *Zizyphus obtusifolia*, *Acacia farnesiana*, and *Oleaya tesota* (Burke 1918, Fisher 1942, Nelson 1962).

Actenodes simi Fisher, 1940. This species has been recorded sporadically from throughout the eastern U.S., with the following apparently representing a new record: KANSAS, Cherokee Co., 2 mi S Galena, N37.04399 W94.63636, 28.vi–13.vii.2005 (1), canopy trap, G. A. Salsbury [KSUC].

Agrilaxia flavimana (Gory, 1841). ARIZONA, Cochise Co., Chiricahua Mts, 12.3 mi NW Portal on Rd 42, Onion Saddle, elev 7600', em. 1–15.vii.2000 (2) *ex* small dead trunk *Pinus ponderosa* P. & C. Lawson (Pinaceae) coll. 4.viii.1998; MISSOURI, Barry Co., Roaring River CA, T22N R27W S36, em. 1–22.vi.2001 (5) *ex* dead branch *Quercus muehlenbergii* coll. 7.iv.2001; Boone Co., Prathersville, 0.5 mi N Hwy 63 on W Outer Road, T49N R13W S13 (SE¼), em. 8.v–8.vi.2001 (2) *ex* dead branch *Quercus macrocarpa* Michx. coll. 4.v.2001; Carter Co., Peck Ranch CA, Stegall Mt NA, T28N R2W S19 (NE¼)–29 (SW¼), em. 16–22.vi.2001 (1) *ex* fire-killed sapling *Pinus echinata* P. Mill. coll. 14.iv.2001; TEXAS, Hidalgo Co., Santa Ana NWR, vic. Rio Grande River on Trail C, em. 3–15.ix.2002 (1) *ex* small dead lower branch *Ulmus crassifolia* coll. 18.x.2001; Val Verde Co., 11.6 mi W Comstock, Hwy 90 at Pecos River, em. 8–17.vi.2002 (4) *ex* dead branch *Quercus pungens* var. *vaseyana* coll. 21.x.2001. This widespread species occurs across the

eastern U.S. west to Arizona and south into Mexico (Bilý 1984); however, the Hidalgo Co. record apparently represents the first record of this species from the Lower Rio Grande Valley (Vogt 1949). It has previously been reported breeding in *Prunus* sp. and several *Quercus* spp. (Knull 1920, 1922; Hespenheide 1973; MacRae & Nelson 2003); however, the observation of *Pinus* spp. as larval hosts in two widely separated localities is noteworthy. To the many flower associations reported for this species (Nelson et al. 1981, Nelson 1987, MacRae 1991) the following can be added: ARIZONA, Santa Cruz Co., Madera Cyn, Super Trail, elev 5500–7500', 2.viii.1998 (5), on flower *Ceanothus fendleri* Gray, M. S. Arduser [TCMC].

Agrilaxia hespenheidei (Bilý, 1984). No biological information has been recorded for this species other than a single specimen collected on *Cirsium* sp. (Asteraceae) flower (Bellamy 2003). Many additional specimens have been collected near the type locality on flowers of *Bouvardia ternifolia* (Cav.) Schlecht. (Rubiaceae): ARIZONA, Cochise Co., Huachuca Mts, Copper Cyn S end, 29.vii.1983 (20), 25–26.vii.1984 (20), 26.vii.1985 (3) & 29.vii.1993 (25), G. H. Nelson [FSCA, TCMC]. Two specimens were taken at the same locality on *Rhus virens* var. *choriophylla* (Woot. & Standl.) L. Benson, 26.vii.1984 & 20.vii.1989, G. H. Nelson [FSCA], but larger series have been collected on *Quercus arizonica* as follows: Copper Cyn W of Montezuma Pass, 24.viii.1964 (1 paratype) & 30–31.vii.1987 (24), G. H. Nelson [FSCA]; Chiricahua Mts, Idyllwilde Cpgd, 27.vii.1993 (9), G. H. Nelson & M. D. Wachel [FSCA].

Agrilus (s. str.) *acaciae* Fisher, 1928. TEXAS, Cameron Co., Brownsville, Audubon Sabal Palm Sanctuary, em. 10–18.v.1997 (3) *ex* dead branch *Leucaena pulverulenta* [RAAC]; same locality, em. 1–30.vi.1994 (1) *ex* dead branch *L. pulverulenta* coll. 12.x.1993 [RAAC]. Previously recorded larval hosts include several *Acacia* spp. and *Prosopis glandulosa* (Fisher 1928, Vogt 1949, Nelson et al. 1981, MacRae & Nelson 2003).

Agrilus (s. str.) *acutipennis* Mannerheim, 1837. MISSOURI, Boone Co., Rock Bridge SP, 20.v.1989, beaten from *Quercus imbricaria* Michx., D. G. LeDoux [& TCMC]. Adults have been reported on a wide variety of plants, especially *Quercus* spp. (Frost & Weiss 1920, Chamberlin 1926, Fisher 1928, Wellso et al. 1976, Nelson & MacRae 1990, MacRae 1991); however, no larval hosts have yet been reported.

Agrilus (s. str.) *albocomus* Fisher, 1928. TEXAS, Brewster Co., Big Bend NP, Green Gulch, 3.7 mi S on Basin Road, em. 21–31.v.2004 (1) *ex* small dead branch *Quercus grisea* Liebm. coll. 13.iv.2004; Jeff Davis Co., 38 mi NW Ft. Davis on Hwy 166, W base Sawtooth Mt, em. 1.vi–31.vii.1995 (2) *ex* pruned branch *Quercus emoryi* Torr. coll. 16.v.1995. These are the first larval host records for the species, which has been collected on *Q. gambelii* Nutt. and flowers of *Rhus glabra* L. (Anacardiaceae) (Fisher 1928).

Agrilus (s. str.) *anxius* Gory, 1841. Specific records of this transcontinental species are apparently lacking from: VERMONT, Bennington Co., Soundgate, viii.1999 (1), malaise trap [RAAC].

Agrilus (s. str.) *arcuatus* (Say, 1825). MISSOURI, Stoddard Co., Holly Ridge CA, T26N R11E S31 (SW¼), 9.vi.2001 (2), beaten from *Quercus stellata* Wangenh. and *Quercus shumardii* Buckley. MacRae (1991) reported adults on *Carya* sp. and *Juglans nigra* L. (Juglandaceae), but these are probably incidental associations for this species, which is usually collected on and has been reared only from fagaceous plant species (Knull 1920, Fisher 1928, Hespenheide 1973).

Agrilus (s. str.) *atricornis* Fisher, 1928. MISSOURI, Butler Co., Big Cane CA, vic. W parking lot, T22N R5E S35 (NW ¼), em. 21.iv–16.v.2002 (19) *ex* dead branch *Quercus phellos* L. cut 8.iv.2001 & coll. 31.iii.2002; Stoddard Co., Holly Ridge CA, E of church, T25N R11E S6 (NW ¼), em. 21–30.iv.2002 (1) *ex* dead branch *Salix nigra* Marsh. (Salicaceae) cut 8.iv.2001 & coll. 31.iii.2002. These larval host records, the first reported for this species, are rather unexpected since adults have been associated previously with *Corylus* spp. (Betulaceae) (Fisher 1928, Bright 1987). These records also represent a significant southwestern extension of the species' known geographical range.

Agrilus (s. str.) *audax* Horn, 1891. This rarely collected species has been recorded from Arizona, Illinois, Missouri, Oklahoma, and Texas (Horn 1891, Chamberlin 1926, Knull 1934, Nelson & MacRae 1990). Fisher (1928) doubted the Illinois record of Chamberlin (1926); however, the occurrence of this species in east-central Missouri (MacRae 1991) suggests Chamberlin's record might be authentic.

Agrilus (s. str.) *bentseni* Knull, 1954. This species has been recorded only from the type locality (Bentsen-Rio Grande Valley SP) (Knull 1954). The following records extend the known distribution of the species approximately 250 miles to the north: TEXAS, Live Oak Co., 17 mi SW George West, 2.v.1992 (26), beaten from *Bernardia myricifolia* (Scheele) S. Wats. (Euphorbiaceae), D. J. Heffern & E. G. Riley [& RLWE, TAMU, TCMC]; Uvalde Co., Concan, Neal's Lodge area, 29°29'45" N, 99°42'45" W, 10–11.v.1997 (17), beating *B. myricifolia*, E. G. Riley [& TAMU].

Agrilus (s. str.) *betulanigrae* MacRae, 2003. This species was recently described from specimens reared from *Betula nigra* (MacRae 2003). Additional specimens have since been reared from the same host at several locations, with the following notable exception: MISSOURI, Clark Co., Battle of Athens SP, vic. playground, T67N R7W S30 (NE ¼), em. 11–20.v.2004 (1 male) *ex* dead branch *Aesculus glabra* L. (Hippocastaneae) coll. 13.iii.2004.

Agrilus (s. str.) *bilineatus* (Weber, 1801). MISSOURI, Barry Co., Mincy CA, along Fox Creek, T21N R20W S27, em. 8–31.v.2001 (2) *ex* 5" diam. dead branch *Quercus muehlenbergii* coll. 7.iv.2001. This species is well known for its attacks on many *Quercus* spp. and *Fagus* spp. (Fagaceae) (Chapman 1915, Fisher 1928, Cote & Allen 1980, MacRae & Nelson 2003).

Agrilus (s. str.) *cavifrons* Waterhouse, 1889. ARIZONA, Pima Co., Santa Rita Mts, Box Cyn, em. 26.ix.2005 (1) *ex* dead *Celtis pallida* Torr., R. L. Penrose & F. T. Hovore [CLBC]. Knull (1937c, 1944) recorded this plant as an adult host, but the above record apparently represents the first larval host confirmation.

Agrilus (s. str.) *celti* Knull, 1920. TENNESSEE, Loudon Co., 7 km N Lenoir City, 10.vi.2000 (3), R. Androw. This species is encountered throughout the eastern U.S. on *Celtis* spp. (Knull 1920, MacRae 1991).

Agrilus (s. str.) *cliftoni* Knull, 1941. GEORGIA, Dade Co., Cloudland Cyn SP, 25.v.1992 (1), R. A. Androw; Wilkinson Co., 6.5 km N McIntyre, 32°54'26" N, 83°11'15" W, 16.v.2003 (4), beaten from *Cornus* sp., R. A. Androw; TENNESSEE, Loudon Co., 7 km N Lenoir City, 30.v.1998 (1) & 6.vi.1999 (2), R. Androw & H. Flanery [RAAC]; same locality, 10.vi.2000 (1), R. A. Androw; TEXAS, Lamar Co., Camp Maxey, 11.v.2003 (1), beating in forest of pine, Godwin [TAMU]; Smith Co., 7 mi N Tyler, 2.v.1999 (1), R. Androw & S. Clark [RAAC]. This eastern U.S. species

has been collected on several plants but reared only from *Juglans nigra* (Wellso et al. 1976, MacRae 1991, MacRae & Nelson 2003).

Agrilus (s. str.) *concinus* Horn, 1891. This very attractive and rarely collected species was recently associated with *Hibiscus* spp. (Malvaceae) (Nelson et al. 1981, MacRae & Nelson 2003). Large series of adults have been encountered on *H. laevis* All. as follows: KANSAS, Linn Co., 4 mi N Pleasanton, Wildlife Area Unit C, Jct Hwy 69 & E1550 Road, 23.vii-10.viii.2002 (24) & 13.vii-13.viii.2003 (26), on foliage of *H. laevis*, G. H. Nelson & T. C. MacRae [& FSCA, RLWE]; 8 mi NW Pleasanton, Wildlife Area Unit A, ¼ mi N of E1550 Road, 6.viii.2002 (2), 16.vii-3.viii.2003 (78) & 26.vi.2004 (6), G. H. Nelson, T. C. MacRae & G. C. Walters, Jr. [& FSCA, CLBC]. The use of this plant as a larval host is confirmed by the emergence of a single adult male on 15.vii.2003 from the base of living clump of *H. laevis* coll. vi.2003 at Wildlife Area Unit C, G. H. Nelson [FSCA]. Adults have also been reported on *H. moscheutos* ssp. *lasicarpus* in southeast Missouri (MacRae & Nelson 2003), and although adults have not yet been reared or cut from this plant, numerous additional specimens have since been collected on foliage of the plant at the same location (17-18.vii.2002 (15), G. H. Nelson [FSCA]; 16.vii.2003 (16), T. C. MacRae & R. S. Thoma; 1.vii.2004 (12), T. C. MacRae & P. Kaufman). In addition, a single larva of what surely represents this species was cut from a swelling at the stem base of a living plant (18.viii.2002). The larva exhibits the typical agriline form and is much too large to possibly represent *Paragrilus tenuis* (LeConte), the only other agriline buprestid associated with *Hibiscus* spp. in North America. To my knowledge, the species has also not yet been recorded from: MISSISSIPPI, Lafayette Co., 16.vi.1949 (1), F. M. Hull (FSCA).

Agrilus (s. str.) *crnicornis* Horn, 1891. MISSOURI, Barry Co., Roaring River CA, vic. shooting range, T22N R27W S36, em. 21.iv-7.v.2002 (9) *ex* dead branch *Gleditsia triacanthos* L. (Fabaceae) cut 7.iv.2001 & coll. 17.iii.2002; Carter Co., Peck Ranch CA, Nordic Hollow, T27N R2W S17, em. 1-7.v.2002 (1) *ex* dead branch *Diospyros virginiana* cut 8.iv.2001 & coll. 31.iii.2002. Adults have been reared from *Fagus grandifolia* Ehrh. and *Quercus alba* (Hespenheide 1973).

Agrilus (s. str.) *defectus* LeConte, 1860. MISSOURI, Boone Co., Prathersville, 0.5 mi N Hwy 63 on W Outer Road, T49N R13W S13 (SE ¼), 4.v.2001 (8), beaten from *Quercus macrocarpa*; Carter Co., Peck Ranch CA, Nordic Hollow, T27N R2W S17, em. 21-30.iv.2002 (10) *ex* dead branch *Quercus muehlenbergii* cut 8.iv.2001 & coll. 31.iii.2002. Adults have been taken on a variety of plants but reared only from *Quercus* spp. (Knull 1920, 1930).

Agrilus (s. str.) *egeniformis* Champlain & Knull, 1923. This species is most often associated with *Gleditsia triacanthos* but has also been reared from *Sapindus saponaria* var. *drummondii* (Hook. & Arn.) L. Benson (Sapindaceae) (Hespenheide 1973, Manley 1977). Adults have also been collected on *Robinia pseudoacacia* L. (Fabaceae) as follows: KANSAS, Comanche Co., 7.vi.1986 (7), G. A. Salsbury [TCMC]; Kingman Co., 26.v-2.vii.1986 (4), G. A. Salsbury [TCMC].

Agrilus (s. str.) *fallax* Say, 1839. This species has been taken on a variety of plants but appears to prefer *Celtis* spp. and *Gleditsia triacanthos* for larval development (Hopkins 1893; Knull 1920, 1922; Hespenheide 1973; Nelson & MacRae 1990). Additional larval and adult hosts include: MISSOURI, Barry Co., Roaring River CA, vic. shooting range, T22N R27W S36, em. 8-16.v.2002 (1) *ex* dead branch *Cornus florida* cut 7.iv.2001 & coll. 17.iii.2002; Clark Co., Frost Island CA,

Steyermark Prairie NA, T65N R6W S9 (SE ¼), 20.v.2001 (3), beaten from branches fire-killed *Crataegus viridis* L. (Rosaceae) and *Juglans nigra*.

Agrilus (s. str.) *ferrisi* Dury, 1908. MISSOURI, Montgomery Co., Graham Cave SP & NA, T48N R6W S27 (NE ¼), em. 16–23.v.2001 (5) *ex* small fire-killed *Celtis tenuifolia* Nutt. coll. 6.v.2001. *Celtis occidentalis* L. is the only other known host for this uncommon beetle (Dury 1908, Blatchley 1910). A new state record and unexpected larval host are represented in the following record: TENNESSEE, Warren Co., 2 mi SW McMinnville, em. spring 2004 (1) *ex* dead branch *Acer saccharum* Marsh., J. P. Basham. It is noteworthy that 22 specimens of *A. fallax* were also reared from the branch. Neither of these species has previously been associated with *Acer*, while both have commonly, and in the case of *A. ferrisi* exclusively, been associated with *Celtis*, suggesting a possible misidentification of the host.

Agrilus (s. str.) *geminatus* (Say, 1923). MISSOURI, Boone Co., Prathersville, 0.5 mi N Hwy 63 on W Outer Road, T49N R13W S13 (SE ¼), 5.v.2002 (8), beaten from *Carya alba* (L.) Nutt. *ex* Ell. Adults have been collected from a number of different plants but reared only from *Quercus* spp. (Knull 1930, Hesperheide 1973, MacRae & Nelson 2003). The number of specimens collected on *C. alba* suggest this may be a larval host.

Agrilus (s. str.) *gibbicollis* Fall, 1901. TEXAS, Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, 18.vi.2003 (1), beaten from *Prosopis glandulosa*. Adults have also been reported on *Quercus* sp. (Chamberlin 1926) and *Gutierrezia* spp. (Asteraceae) (Nelson & Westcott 1976, Foster et al. 1981) and surely breed in the latter (R. L. Westcott, in litt.).

Agrilus (s. str.) *hualpaii* Knull, 1939. CALIFORNIA, Riverside Co., 3 mi S Palm Desert on Hwy 74, 26.vi.1991 (1), beaten from *Acacia greggii*; Santa Rosa Mts, Jct Hwy 74 & Carrizo Road, 27.vi.1991 (22), beaten from *A. greggii*; Whitewater Cyn, 2.5 mi N Interstate 10, 26.vi.1991 (38), beaten from *A. greggii*. No host information has previously been reported for this species.

Agrilus (s. str.) *illectus* Fall, 1901. CALIFORNIA, Riverside Co., Pinyon Flats, 9.vi.1988 (1), on *Lotus rigidus* (Benth.) Greene; San Bernardino Co., San Bernardino Mts, 6 mi N Big Bear Lake, Holcomb Valley, 7–21.vii.1988 (21) & 28.vi.1990 (2), on *Lotus nevadensis* (S. Wats.) Greene; San Gabriel Mts, 1 mi W Big Pines, Table Mt Cpgd, 7.vii–1.viii.1990 (24), on *L. nevadensis* (all G. H. Nelson [FSCA, TCMC]). Adults have been reported previously on other *Lotus* spp. as well and on *Atriplex confertifolia* (Torr. & Frém.) S. Wats. (Chenopodiaceae) and *Eriogonum umbellatum* var. *dichrocephalum* Gandog (Nelson 1962, Nelson & Westcott 1976).

Agrilus (s. str.) *juglandis* Knull, 1920. ARKANSAS, Bentonville, 15.vi.1932 (1), S. A. Summerland [UAAM]; MISSOURI, Clark Co., Frost Island CA, Steyermark Prairie NA, T65N R6W S9 (SE ¼), 20.v.2001 (2), beaten from *Juglans nigra*. This species occurs in the northeastern U.S. and southeastern Canada and has been reported west to Illinois and Iowa (Fisher 1928). It has previously been associated only with *J. cinerea* L. (Knull 1920).

Agrilus (s. str.) *lecontei celticola* Fisher, 1928. TEXAS, Cameron Co., Brownsville, Audubon Sabal Palm Sanctuary, em. 1–6.xi.1997 (2) *ex* dead branch *Leucaena pulverulenta*, R. Androw & M. Brattain [& TCMC]; Hidalgo Co., Bentsen-Rio Grande Valley SP, Rio Grande River Hiking Trail, em. 1–30.vi.2005 (9) *ex* dead branch *Celtis pallida* coll. 8.iv.2004; Val Verde Co., 14 km N Del Rio, Amistad NRA, 29°29'37"N, 100°54'27"W, em. 1–31.x.2001 (10) & 20.vii.2002 (2) *ex* dead

Baccharis sp. coll. 1.v.2000, R. Androw [& TCMC]. This subspecies has also been reared from *Havardia pallens* (Benth.) Britt. & Rose (Fabaceae) but seems to prefer *Celtis* spp. for larval development (Fisher 1928, Nelson et al. 1981, MacRae & Nelson 2003).

Agrilus (s. str.) *macer* LeConte, 1858. TEXAS, Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, elev 5050', 17.vi.1994 (3), beaten from *Celtis laevigata* var. *reticulata* (Torr.) L. Benson. Adults have been reared from *C. occidentalis* and *C. laevigata* Willd. (Frost & Weiss 1920, Fisher 1928).

Agrilus (s. str.) *oblongus* Fisher, 1928. MISSOURI, Boone Co., Eagle Bluffs CA, trail from NW parking lot, T47N R14W S24, em. 8–15.v.2001 (1) ex dead vine *Vitis* sp. (Vitaceae) coll. 9.ix.2000. This represents the first larval host reported for this species, although adults have been reported on *Celtis occidentalis* (MacRae 1991).

Agrilus (s. str.) *obscurilineatus* Vogt, 1949. TEXAS, Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, 19.vi.2003 (1), beaten from *Acacia greggii*. Adults have also been collected on *A. rigidula* and *Juniperus flaccida* Schlecht. (Vogt 1949, MacRae & Nelson 2003), but larval hosts remain unknown.

Agrilus (s. str.) *obsoletoguttatus* (Gory, 1841). MacRae (1991) recorded this species emerging from a dead branch of *Fagus grandifolia* [= *F. americana*]. The host plant was, in reality, *Fagus sylvatica* L. Adults are most commonly collected on *Quercus* spp. (MacRae 1991) but have been reared from a variety of plant hosts (Knull 1920, 1922, 1944; MacRae & Nelson 2003). Additional larval hosts are as follows: MISSOURI, Barry Co., Roaring River CA, vic. shooting range, T22N R27W S36, em. 17–23.v.2002 (1) ex dead branch *Gleditsia triacanthos* cut 7.iv.2001 & coll. 17.iii.2002; Taney Co., Mincy CA, along Fox Creek, T21N R20W S27, em. 17–23.v.2002 (2) & 1–14.vi.2003 (1) ex dead branch *Aesculus pavia* L. cut 7.iv.2001 & coll. 17.iii.2002.

Agrilus (s. str.) *olentangyi* Champlain & Knull, 1925. MISSOURI, Butler Co., Big Cane CA, vic. W parking lot, T22N R5E S35 (NW¼), em. 1–7.v.2001 (1) ex dead *Rhus glabra* cut 18.iii.2000 & coll. 8.iv.2001; NEW MEXICO, Eddy Co., Sitting Bull Falls, 16.v.1988, malaise trap [ENMU]; TENNESSEE, Warren Co., McMinnville, Tennessee State University Nursery Crop Research Station, 22–29.iv.2002, sticky trap [TSRS]. Adults have been collected on *Quercus* sp., *Celtis occidentalis*, and *C. tenuifolia* (Fisher 1928, Nelson & Westcott 1976, Nelson & MacRae 1990); however, the above record apparently represents the first reported larval host.

Agrilus (s. str.) *ornatulus* Horn, 1891. This species has been associated exclusively with *Sapindus saponaria* var. *drummondii* (Nelson & Westcott 1976, Manley 1977). An interesting new larval host is documented by the following record: TEXAS, Val Verde Co., 11.6 mi W Comstock, Hwy 90 at Pecos River, em. 1–30.iv.2004 (3) ex dead branch *Forestiera reticulata* Torr. (Oleaceae) coll. 26.vi.2003.

Agrilus (s. str.) *osburni* Knull, 1937. This uncommon species has been recorded from Connecticut, Georgia, Michigan, Ohio and Quebec (Knull 1937b, Hespeneide 1973, Wellso et al. 1976, Nelson & Westcott 1976, Bright 1987). Until now it is been associated only with *Ostrya virginiana* (P. Mill.) K. Koch (Betulaceae) (Hespeneide 1973). The following record extends the known distribution of the species and documents an additional larval host: MISSOURI, Butler Co., Big Cane CA, vic. W parking lot, T22N R5E S35 (NW¼), em. 22–31.v.2003 (4) ex dead branch *Quercus phellos* coll. 31.iii.2002.

Agrilus (s. str.) *otiosus* Say, 1839. This species is frequently encountered on and has been reared from several *Carya* spp. (Frost & Weiss 1920, Nelson & MacRae 1990, MacRae 1991), to which the following can be added: KANSAS, Riley Co., Manhattan, em. 30.iv–10.v.1987 (9) *ex* dead branch *Carya cordiformis* (Wangenh.) K. Koch. Adults have also been reared from *Diospyros virginiana*, *Juglans nigra* and *Sassafras albidum* (Nutt.) Nees (Lauraceae) (Knull 1920, 1930; MacRae 1991).

Agrilus (s. str.) *paracelti* Knull, 1972. MISSOURI, Carter Co., Peck Ranch CA, Nordic Hollow, T27N R2W S17, em. 21.iv–31.v.2002 (24) *ex* dead branch *Celtis tenuifolia* cut 8.iv.2001 & coll. 31.iii.2002; Taney Co., Mincy CA Cpgd, T22N R20W S16 (SE1/4), em. 1.v–11.vii.2002 (12) *ex* dead branch *C. tenuifolia* cut 7.iv.2001 & coll. 15.ix.2001; same data as previous except em. 21.iv–7.vi.2002 (150) *ex* wood coll. 17.iii.2002; TENNESSEE, Warren Co., McMinnville, Tennessee State University Nursery Crop Research Station, 15–17.v.2001, sticky trap [TSRS]; TEXAS, Brewster Co., Big Bend NP, Chisos Mts Basin, lower Window Trail, em. 1–31.v.2002 (2) *ex* dead branch *Celtis laevigata* var. *reticulata* (Torr.) L. Benson. This species has been collected on a variety of plants but is most abundant on and has been reared only from *Celtis* spp. (Knull 1972, Nelson & Westcott 1976, Nelson & MacRae 1990, MacRae 1991). The Big Bend record represents a significant western extension to the known geographical range of this species, which occurs abundantly across the eastern U.S.

Agrilus (s. str.) *pectoralis* Waterhouse, 1889. Fisher (1928) recorded “*Acacia farnesiana* and/or *P. glandulosa*” as a larval host for this species. The latter plant and others are confirmed as larval hosts by the following: ARIZONA, Pima Co., Santa Rita Mts, below Madera Cyn, Proctor Road, em. 16.v–31.vii.1992 (46) *ex* dead branch *Prosopis glandulosa* coll. viii.1991; TEXAS, Cameron Co., 4 mi E Palmito Hill, em. 1–30.iv.1994 *ex* dead branch *Pithecellobium ebano* (Berl.) C. H. Muller (Fabaceae) coll. x.1993, D. J. Heffern [& TCMC]; Hidalgo Co., Bentsen-Rio Grande Valley SP, Rio Grande River Hiking Trail, em. 1–15.vii.2003 (1) *ex* dead branch *Parkinsonia aculeata* coll. 17.x.2001; Val Verde Co., 11.6 mi W Comstock, Hwy 90 at Pecos River, em. 1–11.vii.2002 (1) *ex* dead branch *P. glandulosa* coll. 21.x.2001.

Agrilus (s. str.) *prospidis* Fisher, 1928. TEXAS, Hidalgo Co., Santa Ana NWR, vic. Pintail Lake on Trail C, em. 1–17.viii.2002 (1) *ex* dead branch *Celtis laevigata* coll. 18.x.2001. Other recorded larval hosts include *C. pallida*, *Leucaena pulverulenta*, *Parkinsonia aculeata*, *Prosopis glandulosa*, and *Zanthoxylum fagara* (L.) Sarg. (Rutaceae) (Nelson et al. 1981, Nelson 1987, MacRae & Nelson 2003).

Agrilus (s. str.) *quadriguttatus quadriguttatus* Gory, 1841. MISSOURI, Clark Co., Rose Pond NA, edge of Rose Pond, T64N R6W S24 (NW¼), em. 1–17.v.2002 (3) *ex* dead branch *Salix nigra* coll. 7.iv.2002. Adults have been reared from *Alnus* sp. and *Salix* sp. and collected on *S. exigua* Nutt. (Blanchard 1889, Knull 1925, MacRae 1991).

Agrilus (s. str.) *quadriguttatus fulminans* Fisher, 1928. CALIFORNIA, Kern Co., 2.4 mi E Lost Hills on Hwy 46, 26.v.1995 (4), beaten from *Salix goodingii* Ball; Ventura Co., 2 mi E Munson Cyn on Sespe Creek, 20.vi.1992 (4), beaten from *Salix lasiolepis* Benth. Adults of this Pacific Coast subspecies have also been collected on *S. lucida* ssp. *lasiandra* (Benth.) E. Murr. (Fisher 1928).

Agrilus (s. str.) *townsendi* Fall, 1907. Adults of this species have previously been collected on *Quercus gambelii* and *Q. hypoleucoides* A. Camus (Frost & Weiss 1920, Nelson & Westcott 1976). An additional adult host is as follows: ARIZONA,

Cochise Co., Huachuca Mts, Parker Cyn Lake, 1.viii.1976 (10), beaten from *Quercus arizonica*, G. H. Nelson [FSCA, TCMC].

Anthaxia (Haplanthaxia) caseyi pseudotsugae Chamberlin, 1928. CALIFORNIA, Colusa Co., 1 mi NE Jct Hwys 16 & 20 on Bear Creek, em. 3.v.1992 (5) & 25.iv.1993 (1) *ex* dead branch *Pinus sabiniana* Dougl. *ex* Dougl. coll. iv.1992; Ventura Co., Lockwood Valley, 16 mi E Hwy 33, em. 25.iv.1993 (3) *ex* dead branch *Pinus monophylla* Torr. & Frém. coll. 20.vi.1992. The only other recorded larval host is *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae), from which part of the type series was reared (Chamberlin 1929).

Anthaxia (Haplanthaxia) caseyi santarosae Cobos, 1958. CALIFORNIA, Riverside Co., Santa Rosa Mts, 2.4 mi NE Pinyon Flats on Hwy 74, 28.vi.1993 (1), on dead branch *Pinus monophylla*; same locality, 6.vi.1994 (4), on flower *Eriogonum fasciculatum* var. *foliolosum*; Pinyon Flats, Jct Jerboa & Indio Roads, 23.vi.1991 (1) & 6.vi.1994 (11), on flower *E. f.* var. *foliolosum*. No host information has previously been recorded for this subspecies.

Anthaxia (Haplanthaxia) cyanella Gory, 1841. Previously reported larval hosts for this species include *Castanea* sp. (Fagaceae), *Cercis canadensis* L. (Fabaceae), and *Amelanchier arborea* (Michx. f.) Fern. (Rosaceae) (Chittenden 1889, Chamberlin 1926, Hesperheide 1973, Nelson et al. 1981). The species has also been recorded from *Vitis* sp. (Chamberlin 1926); however, that record almost certainly refers to *A. (H.) dichroa* Bílý (MacRae & Nelson 2003). A single adult was reared from a fallen dead branch of *Gleditsia triacanthos* in: MISSOURI, Carter Co., Ozark NSR, Big Spring Cpgd, T27N R1E S31 (SE ¼), em. 8–15.v.2001 *ex* wood coll. 14.iv.2001. Large series of this species, however, have been reared from fallen dead branches of *Betula nigra* collected at multiple localities, suggesting this is a preferred larval host for the species. Specific records include: MISSOURI, Adair Co., 3.7 mi SE Millard on Hwy 63, T61N R14W S30 (NE ¼), em. 22.v–14.vi.2003 (5) *ex* wood coll. 19.iv.2003; Butler Co., Big Cane CA, vic. W parking lot, T22N R5E S35 (NW ¼), em. 1.v–31.vii.1997 (66) & 8–14.vi.1998 (1) *ex* wood coll. 23.iv.1997 & 12.v–15.vii.2003 (39) *ex* wood coll. 21.iii.2003; Coon Island CA, T22N R7E S19 (NW ¼), em. 24.v–5.vii.1998 (42) *ex* wood coll. 31.viii.1997 [& CLBC]; Carter Co., Ozark NSR, Big Spring Cpgd, T27N R1E S31 (SE ¼), em. 28.iv–23.v.2001 (10) *ex* wood coll. 14.iv.2001, 17.iv–30.vi.2002 (29) *ex* wood coll. 31.iii.2002 & 11.v–10.vi.2004 (24) *ex* wood coll. 21.iii.2004; Clark Co., Rose Pond CA, T64N R6W S13 (SW ¼), em. 22–31.v.2003 (1) *ex* wood coll. 5.x.2002; outside SW corner of Rose Pond NA, T64N R6W S23 (NE ¼), em. 8–31.v.2001 (25) *ex* wood coll. 5.v.2001, 17.v–24.vi.2002 (13) *ex* wood coll. 7.iv.2002 & 21–31.v.2004 (7) *ex* wood coll. 13.iii.2004; Ste. Genevieve Co., Hawn SP, E of Cpgd along Pickle Creek, T36N R7E S11, em. 1.v–30.vi.1995 (7) *ex* wood coll. xii.1994 & 12–22.vii.1997 *ex* wood coll. 1.iii.1997.

Several species in the subgenus *Haplanthaxia* are known to exhibit multiple color forms in one or both sexes (Wellso 1973, MacRae & Nelson 2003), but to my knowledge only the “blue” form of *A. cyanella* has been reported until now. Females reared from *B. nigra* in the above records include both “blue” and “bronze” forms. Blue females range from bright aqua to dark violaceous-blue dorsally and with the pronotal disc and sometimes varying portions of the elytra blue-black, whereas bronze females range from dark cupreous to brassy-cupreous and exhibit varying degrees of brassy reflections on the upper frons and vertex and greenish or cyaneous reflections on the lower frons, anterior margin and lateral portions of the pronotum,

and anterior margin of the elytra extending around the scutellum and more or less posteriorly on the elytral disc along the sutural margins. Bronze females with strongly developed greenish/cyaneous reflections may also exhibit faint greenish/cyaneous longitudinal posteriolateral reflections on the elytra. Both color forms were present in material reared from *B. nigra* in northeastern Missouri (Adair and Clark Counties), while only bronze females have been reared from this plant in other parts of the state. Interestingly, the *G. triacanthos* specimen from Carter Co. (southeastern Missouri) is a blue female, yet only bronze females were reared from *B. nigra* collected at the same locality. The few remaining females known from the state (MacRae 1991, MacRae & Nelson 2003) are blue. Blue females resemble those of *A. (H.) quercicola* Wellso and *A. (H.) dichroa* Bílý but can be distinguished by the uniformly blue frons that lacks a distinct circular impression on the lower half. Bronze females resemble those of *A. dichroa* but are distinguished by the greenish reflections on the lower versus upper frons. In addition, *A. dichroa* and *A. quercicola* have been associated exclusively with *Vitis* and *Quercus*, respectively, for larval development (Wellso 1973, MacRae & Nelson 2003). Bronze females may also be confused with females of *A. (H.) quercata* (Fabricius), which also exhibits bicolorous elytra, but the blue-green areas of the elytra in the latter species typically form longitudinal vittae that do not surround the scutellum or reach the sutural margin. Only “bronze” males have been encountered in Missouri, all of which were reared from *B. nigra* in association with mixed blue/bronze female cohorts or bronze-only cohorts. Coloration of bronze males and its variability are similar to that exhibited by bronze females except for the bright green frons of the male. They resemble male *A. quercata* but can be distinguished by their genitalia (Wellso et al. 1976) and uniformly dark cupreous posterior third of the elytra, rarely exhibiting faint greenish or cyaneous longitudinal posteriolateral reflections.

Anthaxia (Haplantaxia) dichroa Bílý, 1991. This species was described from specimens collected in Florida, Louisiana and South Carolina (Bílý 1991) and subsequently recorded from Kansas and Missouri (MacRae & Nelson 2003). The following record suggests this species is widespread throughout the eastern U.S. in association with *Vitis* spp.: PENNSYLVANIA, Greene Co., Ryerson Station SP, em. 10–20.v.1997 (9) *ex dead Vitis* sp. coll. iv.1997, R. A. Androw [& TCMC].

Anthaxia (Haplantaxia) fisheri Obenberger, 1928. MISSOURI, Putnam Co., Mineral Hills Cons. Area, T65N R19W S24, 20.v.2001 (1), beaten from *Prunus serotina* Ehrh. Adults are commonly collected on and have been reared from *P. americana* Marsh. (MacRae 1991). I can find no specific records of this species from: TEXAS, Anderson Co., Gus Engeling WMA, 2.v.1999 (5), beaten from foliage *Prunus* sp., R. Androw & S. M. Clark [RAAC].

Anthaxia (Haplantaxia) quercata (Fabricius, 1801). Several plants recorded as larval hosts for this species—i.e., *Cercis canadensis*, *Crataegus* sp., and *Quercus velutina* Lam. (Knull 1920, Champlain & Knull 1925)—must refer to other species, perhaps *A. cyanella*, since recent larval host observations for *A. quercata* have been limited to *Pinus* spp. (Hespenheide 1973, MacRae 1991). An additional larval host in the family Pinaceae is represented by the following record: INDIANA, Tippecanoe Co., W. Lafayette, em. 11.v.1981 (12) *ex dead branch Picea* sp., M. & N. Deyrup [VGC].

Anthaxia (Haplantaxia) viridicornis (Say, 1823). This species has been reared almost exclusively from *Salix* spp. (Knull 1922, MacRae 1991), although Nelson

et al. (1981) did report *Quercus* sp. as a larval host. Blackman et al. (1924) recorded numerous specimens emerging from dead *Carya glabra* (P. Mill.) Sweet, but this likely represents a misapplication of the name, as they discuss the species emerging concurrently with *A. (H.) viridifrons* Gory, commonly associated with *Carya* spp. and *Ulmus* spp., and their opinion that the two forms probably represent the two sexes of a single species. Likewise, Hespenheide (1973) recorded the species breeding in *C. illinoensis* (Wangenh.) K. Koch, *C. ovata*, and *Ulmus americana* L., but again these records almost certainly refer to *A. viridifrons* (see discussion below under *A. viridifrons*). Additional *Salix* spp. are confirmed as larval d'hosts' for *A. viridicornis* as follows: MISSOURI, Clark Co., Rose Pond CA, T64N R6W S13 (SW ¼), em. 12.v–31.vii.2003 (109) ex dead branch *Salix nigra* coll. 5.x.2002; Shannon Co., Ozark NSR, Round Spring RA, Middle Access Cpgd, T30N R4W S20 (NW ¼), em. 12–21.v.2003 (2) ex dead branch *Salix exigua* coll. 1.v.2003; Stoddard Co., Holly Ridge CA, E of church, T25N R11E S6 (NW ¼), em. 17.v–7.vi.2002 (14) & 22.v–14.vi.2003 (3) ex 1–2" diam. dead trunk *S. nigra* cut 8.iv.2001 & coll. 31.iii.2002; Stoddard Co., Otter Slough CA & NA, T24N R9E S8 (SE ¼), em. 1–14.vi.2003 (7) ex dead branch *S. nigra* coll. 8.vi.2002. The following adult host record from a related plant genus may also be of significance: OHIO, Ross Co., 1 mi S Chillicothe, Rt 50 at Scioto River, 23.v.1998 (6), on *Populus* sp. (Salicaceae), R. Androw.

Anthaxia (Haplantaxia) viridifrons Gory, 1841. Cobos (1958) placed this species in synonymy under *A. viridicornis*, but Wellso et al. (1976) regarded it as a valid species. Bright (1987) returned it to synonymy, citing the occurrence of intergrades, but nearly all recent authors (e.g., Nelson & Westcott 1976; Nelson et al. 1981; Nelson 1987; Nelson & MacRae 1990; MacRae 1991; Bílý 1991, 1997) have accepted its status as a valid species based on differences in coloration, male genitalia, and host plant preferences. Though associated with a variety of plants, it breeds primarily in *Carya* spp. and *Ulmus* spp. (Knull 1920, Nelson & MacRae 1990, MacRae 1991). Chamberlin's (1926) records of *Salix* sp. and *Vitis* sp. as larval hosts almost certainly refer to *A. viridicornis* and *A. dichroa*, respectively. Additional distributions and larval and adult hosts are as follows: MISSOURI, Atchison Co., Brickyard Hill Loess Mound NA, vic. W side Charity Lake, T65N R42N S1 (NE ¼), 19.v.2001 (4), on trunk/dead branches *Carya cordiformis*; Carter Co., Peck Ranch CA, Stegall Mt NA, T28N R2W S19 (NE ¼)–29 (SW ¼), em. 23–30.iv.2001 (2) ex dead branch *Amelanchier arborea* cut 18.iii.2000 & coll. 14.iv.2001; Clark Co., Frost Island CA, Steyermark Prairie, T65N R6W S9 (SE ¼), 20.v.2001 (5), beaten from fire-killed *Gleditsia triacanthos* & *Juglans nigra*; Crawford Co., Blue Spring Creek CA, T39N R2W S5 (SE ¼), em. 1–15.v.2001 (3) ex ½–2" diam. dead branch *Carya laciniosa* coll. 28.iv.2001; Iron Co., Taum Sauk SP, Mina Sauk Falls Trail, T33N R3E S5 (SE ¼), em. 1–7.v.2001 (16) ex small dead *Ulmus alata* Michx. coll. 3.xii.2000; TENNESSEE, Loudon Co., 7 km N Lenoir City, 10.vi.2000 (1), R. A. Androw; TEXAS: Mason Co., 2 mi W Castell, em. 3.iv.1993 (1) ex dead branch *Morus* sp. (Moraceae), D. W. Sundberg [TCMC, courtesy D. J. Heffern]. Small series of specimens have also been reared from *Ulmus crassifolia* as follows: TEXAS, Bexar Co., San Antonio, 0.7 mi N Loop 1604 on Hwy 281, em. 17–31.v.1999 (2) ex dead lower branch coll. 5.x.1997; Hidalgo Co., Santa Ana NWR, vic. Rio Grande River on Trail C, em. 8–31.v.2002 (5) ex dead lower branch coll. 18.x.1997. These records represent an extension of the known geographical range

of the species (more typically encountered across the eastern U.S. and southeastern Canada) southward to the Lower Rio Grande Valley (LRGV) of Texas. The LRGV specimens (Hidalgo Co.) are smaller and exhibit considerably brighter, more aeneous coloration on the vertex, pronotum, and elytra than typical specimens from the eastern U.S. The slightly more northerly San Antonio specimens also exhibit this coloration, but to a lesser extent than the LRGV specimens, and the still more northerly specimen from Mason Co. (as well as specimens from nearby Bastrop and Brazos Counties, Texas [TCMC]) exhibits only traces of this coloration, primarily on the vertex, anterolateral areas of the pronotum, and elytral apices.

Brachys aeruginosus Gory, 1841. Adults have been collected on a variety of plants (Nelson & Westcott 1976, Bright 1987, Nelson & MacRae 1990, MacRae 1991) but reared only from *Quercus* sp. (Cook 1886). A good series of adults was beaten from *Quercus falcata* in: MISSOURI, Stoddard Co., Holly Ridge CA & NA, T25N R11E S6 (NW ¼), 3.v.1998 (14).

Buprestis (s. str.) *maculipennis* Gory, 1840. An interesting western range extension for this typically eastern U.S. species is as follows: TEXAS, Jeff Davis Co., Davis Mts Resort, Limpia Cyn, elev 5710', 24.vi.1994; below Sawtooth Mt on Hwy 166, 3.vii.2004 (22), flying to *Pinus cembroides* Zucc., D. J. Heffern [& CLBC, RLWE, TCMC].

Buprestis (s. str.) *nuttalli* (Kirby, 1837). Capelouto (1949) recorded this species (sensu Helfer 1941) ovipositing on *Pinus palustris* P. Mill. in Florida. This record surely refers to *B.* (s. str.) *consularis* Gory, which Knull (1947) revalidated on the basis of differences in male genitalia. As currently understood, *B. nuttalli* is limited to the boreal coniferous zone and western mountain ranges of North America.

Buprestis (*Knuliobuprestis*) *confluenta* (Say, 1823). COLORADO, Larimer Co., 3 mi N Ft. Collins, 3–16.vii.1966 (11), on *Populus deltoides* ssp. *monilifera* (Ait.) Eckenwalder, S. G. Wellso [& TCMC, courtesy of UAAM]. The species has been recorded breeding in *Populus* spp. (Burke 1917, Nicolay & Weiss 1918).

Buprestis (*Knuliobuprestis*) *rufipes* Olivier, 1790. Helfer (1941) recorded *Pinus echinata* P. Mill. as a larval host for this species; however, this surely refers to another species. Members of this subgenus are apparently restricted to deciduous hardwoods for larval development (Kurosawa 1988, Nelson 1991), a variety of which have been recorded as larval hosts for this species (Nicolay & Weiss 1918, Knull 1920, MacRae & Nelson 2003). An additional larval host is recorded as follows: MISSOURI, Bollinger Co., Duck Creek CA, NE corner of Pool 2, T28N R9E S32, em. 1–31.v.1997 (1) *ex* dead trunk *Quercus palustris* Muenchh. coll. ix.1996. Another adult was also found on the trunk of a large, standing dead *Platanus occidentalis* L. (Platanaceae) as follows: MISSOURI, Ozark NSR, Big Spring Cpgd, T27N R1E S31 (SE ¼), 3.ix.2000 (1).

Chalcophora virginiensis (Drury, 1770). MISSOURI, Oregon Co., Hwy 19 at Greer Spring Trailhead, T25N R4W S36 (SE ¼), 16.ix.2001 (1), dead adult cut *ex* sapwood of 12" diam. stump dead *Pinus echinata*. Chamberlin (1926) reported *P. echinata* as a host for this species but did not specify whether it was larval or adult. Other reported larval hosts include *P. strobus* L. and *P. rigida* P. Mill. (Blanchard 1889, Chittenden 1889).

Chrysobothris (s. str.) *acaciae* Knull, 1936. TEXAS, Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, em. 1–11.vii.2002 (1) & 1–15.vii.2003 (1) *ex* dead branch

Acacia greggii coll. 24.x.2001. This pretty and uncommonly encountered species has also been collected on *A. constricta* and *A. farnesiana* (Knull 1936, Westcott 1990) and reared from *Prosopis glandulosa* var. *glandulosa* (Ueckert & Wright 1974).

Chrysobothris (s. str.) *adelpha* Gemminger & Harold, 1869. FLORIDA, Highlands Co., Archbold Biological Station, W of lab, em. 16.iv.2001 (1) *ex* dead *Carya floridana* Sarg., M. Deyrup [VGC]; MISSOURI, Crawford Co., Blue Spring Creek CA, T39N R2W S5 (SE ¼), em. 9–22.vi.2001 (2) *ex* ½–2" diam. dead branch *Carya laciniosa* coll. 28.iv.2001. Adults have been reared from several *Carya* spp. and *Prosopis glandulosa* (Fisher 1942, MacRae 1991, Nelson et al. 1996).

Chrysobothris (s. str.) *analisis* LeConte, 1860. TEXAS, Hidalgo Co., Bentsen-Rio Grande Valley SP, Rio Grande River Hiking Trail, em. 1.vii–30.ix.1995 (15) *ex* dead branch *Acacia farnesiana* coll. v.1995; Santa Ana NWR, vic. Pintail Lake on Trail C, em. 25.vi–15.ix.2002 (6) *ex* dead branch *A. farnesiana* coll. 18.x.2001. This highly polyphagous species has been reared from a variety of hosts in several plant families (Fisher 1942; Wellso 1973; Manley 1977; Nelson et al. 1981, 1996; Nelson & Westcott 1976; Hovore & Penrose 1982; Boldt & Robbins 1987; Westcott 1990; MacRae & Nelson 2003).

Chrysobothris (s. str.) *axillaris* Horn, 1886. ARIZONA, Cochise Co., Chiricahua Mts, Cave Creek Cyn, vic. Sunny Flat Cpgd, elev 5030', em. 12–20.vi.2000 (1) *ex* dead trunk/main branch *Quercus hypoleucoides* coll. 4.viii.1998; TEXAS, Pecos Co., 27 mi SW Fort Stockton, em. 1–31.v.1999 (2) *ex* dead branch *Q. mohriana* Buckl. *ex* Rydb., D. J. Heffern [& TCMC]. This oak associate has also been collected on *Q. gambelii* and reared from *Q. emoryi* and *Q. arizonica* (Burke 1918, Chamberlin 1926, Fisher 1942).

Chrysobothris (s. str.) *azurea* LeConte, 1857. MISSOURI, Barry Co., Roaring River CA, vic. shooting range, T22N R27W S36, em. 17–23.v.2002 (1) *ex* dead branch *Cercis canadensis* cut 7.iv.2001 & coll. 17.iii.2002; Boone Co., Rock Bridge SP, em. 8–15.v.2001 (1) *ex* fire-killed *Diospyros virginiana* coll. 9.ix.2000; Clark Co., Frost Island CA, Steyermark Prairie NA, T65N R6W S9 (SE ¼), 20.v.2001 (1), beaten from fire-killed *Gleditsia triacanthos*; Taney Co., Mincy CA Cpgd, T22N R20W S16 (SE ¼), em. 8–16.iv.2002 (1) *ex* dead branch *C. canadensis* cut 7.iv.2001 & coll. 17.iii.2002; same locality, em. 8–16.v.2002 (1) *ex* dead branch *D. virginiana* cut 7.iv.2001 & coll. 15.ix.2001. Although this species is highly polyphagous (Barr 1971, Fisher 1942, MacRae 1991), records of it breeding in *Pinus* sp. (Knull 1925) are likely erroneous or incidental.

Chrysobothris (s. str.) *basalis* LeConte, 1857. TEXAS, Hidalgo Co., Bentsen-Rio Grande Valley SP, Rio Grande River Hiking Trail, em. 1.viii–30.ix.1995 (8) & 1–31.vii.1996 (2) *ex* dead branch *Acacia farnesiana* coll. v.1995; Zapata Co., Falcon Lake SP, vic. campsite #47, em. 1–31.viii.1995 (1) *ex* bleeding trunk *A. farnesiana* coll. v.1995. The species has been collected on several leguminous plant species but reared only from *Leucaena pulvurulenta* and *A. rigidula* (Vogt 1949, MacRae & Nelson 2003).

Chrysobothris (s. str.) *beameri* Knull, 1954. TEXAS, Brewster Co., Big Bend NP, Chisos Mts Basin, upper Window Trail, em. 18.vi–17.viii.2002 (6) *ex* dead branch *Rhus virens* var. *choriophylla* coll. 22.x.2001. The species has also been reared from *R. virens* Lindheimer *ex* Gray (Westcott & Davidson 2001) and collected on *R. aromatica* Ait. (Manley 1977). Nelson (1968a) reported adults on *Pinus cembroides*,

but the repeated association of this species with *Rhus* spp. suggests that latter record may be an incidental association.

Chrysobothris (s. str.) *breviloba* Fall, 1910. TEXAS, Jeff Davis Co., Davis Mts Resort, Limpia Cyn along Yellow Knife Trail, elev 5650', em. 1.vi–22.vii.2002 (14) ex dead branch *Pinus remota* (Little) D. K. Bailey & Hawksworth coll. 24.x.2001. This conifer associate has also been reared from several other *Pinus* spp. as well as *Pseudotsuga menziesii* (Burke 1918, Chamberlin 1926, Fisher 1942).

Chrysobothris (s. str.) *chlorocephala* Gory, 1841. MISSOURI, Ste. Genevieve Co., Pickle Creek NA, em. 23.v.1992 (1) ex dead branch *Carya glabra* coll. xi.1991. Other recorded larval hosts for this species include *Amelanchier arborea*, *Betula nigra*, *C. illinoensis*, and *Vitis* sp. (Nelson et al. 1981, MacRae 1991, MacRae & Nelson 2003).

Chrysobothris (s. str.) *crandalli* Knull, 1943. ARIZONA, Gila Co., 3 mi NE Gimela, 12.vi.1977 (1), on *Bebbia juncea* (Benth.) Greene (Asteraceae), W. B. Warner [TCMC]. Adults have been collected on several other herbaceous plants (Westcott 1990), including lower stems and exposed root crowns of *Palafoxia linearis* [= *P. arida* var. *gigantea*] and lower stems of dead *Croton wigginsii* L. C. Wheeler in sand dune habitats.

Chrysobothris (s. str.) *cribraria* Mannerheim, 1837. MISSOURI, Stoddard Co., Holly Ridge CA, T26N R11E S31 (SW¼), em. 1.vii–31.x.2000 (60) & 1.vi–15.vii.2001 (19) ex 3–4" diam. trunk dead *Pinus resinosa* Soland. coll. 20.v.2000. This beetle has been reared from several other *Pinus* spp. (Blanchard 1889, Chittenden 1889, Davis & Leng 1912, Fisher 1942, MacRae 1991).

Chrysobothris (s. str.) *dentipes* (Germar, 1824). FLORIDA, Highlands Co., Archbold Biological Station, W of lab, 20.iv.2001, on burned *Pinus elliotii* Engelm., M. Deyrup [VGC]. This conifer associate has been reared from several *Pinus* spp. as well as *Abies balsamea* (L.) P. Mill. and *Larix laricina* (Du Roi) K. Koch (all Pinaceae) (Chamberlin 1917a; Knull 1920, 1922; Fisher 1942; Dearborn & Donahue 1993).

Chrysobothris (s. str.) *exesa* LeConte, 1858. NEW MEXICO, Eddy Co., 10 mi S Carlsbad, Dark Cyn Road, em. 10.ix.1995 (1) ex dead branch *Celtis* sp. coll. ix.1990, R. Androw & M. Brattain [RAAC]. Other larval hosts for the species include *Acacia greggii*, *Prosopis glandulosa*, and *Salix* sp. (Burke 1918, Van Dyke 1918, Fisher 1942, Westcott 1990).

Chrysobothris (s. str.) *fiskei* Fisher, 1942. TEXAS, Jeff Davis Co., 11.3 mi W Ft. Davis, Hwy 166 picnic area, elev 5540', em. 8–24.vi.2002 ex dead branch *Quercus pungens* var. *vaseyana* coll. 24.x.2001. The species has also been reared from *Cercis canadensis* var. *texensis* (S. Wats.) M. Hopkins (Fabaceae) [= *C. reniformis*] (Fisher 1942) and *Quercus* sp. (Barr & Westcott 1976).

Chrysobothris (s. str.) *ignicolis* Horn, 1885. Adults have been reared from several *Juniperus* spp. (Burke 1918, Fisher 1942, Wellso 1973). One of these, *J. "phachyphloea"* (Fisher 1942), seems to be a misspelling of *J. pachyderma*, which is a synonym of *J. deppeana* Steud. This species and another congener are confirmed as larval hosts in the following records: NEVADA, Mineral Co., 6.5 mi ENE state line on Hwy 359, Anchorite Pass, elev 7626', em. 1–30.vi.1997 (5) ex dead branch *Juniperus osteosperma* (Torr.) Little coll. 17.ix.1995; TEXAS, Jeff Davis Co., Davis Mts Resort, 4.6 mi W Hwy 166, elev 5800', em. 1.vi–30.ix.1995 (211) & 1–31.vii.1996 (22) ex dead branch *Juniperus deppeana* coll. vi.1994; Davis Mts Resort, Limpia Cyn

along Yellow Knife Trail, elev 5650', em. 1-30.vi.2002 (24) *ex* dead branch *J. deppeana* coll. 24.x.2001. Fisher (1942) also reported *Cupressus* sp. and *Vauquelinia californica* (Torr.) Sarg. (Rosaceae) as larval hosts.

Chrysobothris (s. str.) *lateralis* Waterhouse, 1887. NEW MEXICO, Hidalgo Co., Peloncillo Mts, Granite Gap, 18.0 mi N Rodeo on hwy 80, elev 4260', em. 1-20.vi.2000 (2) *ex* dead branch *Acacia greggii* coll. 3.viii.1998. MacRae & Nelson (2003) reported adults on this plant, and *Prosopis glandulosa* and *Vauquelinia californica* have also been reported as larval hosts (Burke 1918, Fisher 1942). Chamberlin (1926) reported a variety of other plants as hosts; however, many of these need to be confirmed.

Chrysobothris (s. str.) *leechi* Barr, 1974. Adults of this species have been collected on *Pinus* spp., and some hosts recorded for *C.* (s. str.) *caurina* Horn (e.g., Fisher 1942, Bright 1987) might also refer to this species (Barr 1974). The following record confirms *Pinus* as a larval host genus: CALIFORNIA, El Dorado Co., El Dorado NF, Ice House Lake, vic. dam, em. 23.v-6.vi.1992 (2) *ex* dead branch *Pinus ponderosa* coll. viii.1991.

Chrysobothris (s. str.) *ludificata* Horn, 1886. ARIZONA, Cochise Co., Chiricahua Mts, vic. Rustler Park, elev 8290', em. 1-30.vi.1995 (1), 1.vii-30.ix.1996 (5) & 17.vii-31.viii.1997 (6) *ex* dead branch *Pseudotsuga menziesii* coll. 15.v.1995; same data as previous except em. 5-17.vii.1999 (2) *ex* recently-cut wood coll. 4.viii.1998. Fisher (1942) reported adults on this host as well as *Picea pungens* Engelm., but until now it has only been reared from *Pinus* spp. (Burke 1918, Fisher 1942).

Chrysobothris (s. str.) *mali* Horn, 1886. This is perhaps the most polyphagous species of *Chrysobothris* in North America. Burke (1929) and Fisher (1942) list at least 42 plant genera as hosts, although it is not known whether all of these are based on actual rearings. Additional larval and adult hosts are represented by the following records: CALIFORNIA, El Dorado Co., Folsom Lake SRA, 1.2 mi N Jct Green Valley & Salmon Falls Roads, em. 1-30.vi.1996 (1) *ex* dying, flagged sucker off base of *Quercus wislizenii* coll. iv.1995; Fresno Co., 4 mi E Friant Dam, Table Mt Road, 15.v.1993 (2), beaten from *Frangula californica* ssp. *cuspidata*; San Bernardino Co., San Gabriel Mts, Lone Pine Cyn, 7 mi SE Wrightwood, 24.vi.1991 (2), beaten from dead branch *Cercocarpus montanus* var. *glaber*.

Chrysobothris (s. str.) *merkelii* Horn, 1886. ARIZONA, Pima Co., Santa Rita Mts, below Madera Cyn, Proctor Road, 24.viii.1991 (1), beaten from *Mimosa dysocarpa*. Adults have been associated with several other fabaceous plants (Burke 1918, Vogt 1949, Nelson et al. 1996).

Chrysobothris (s. str.) *octocola* LeConte, 1858. TEXAS, Brewster Co., Big Bend NP, Tornillo Flat, Hwy 385 at Fossil Bone Exhibit, em. 23.vii-2.ix.2002 (7) *ex* dead branch *Acacia constricta* coll. 23.x.2001; Zapata Co., Falcon Lake SP, along N portion of Nature Trail, em. 23.vii-2.ix.2002 (27) *ex* dead branch *Acacia rigidula* coll. 20.x.2001. Adults have been reared from a variety of other plants (Burke 1918, Van Dyke 1942, Westcott 1990, MacRae & Nelson 2003).

Chrysobothris (s. str.) *purpureoplagiata* Schaeffer, 1904. CALIFORNIA, Imperial Co., 2 mi W Ocotillo, em. 1-31.viii.1993 (1) *ex* dead branch *Psorothamnus spinosus* coll. x.1992. Nelson et al. (1981) reported adults on this and several other plants, but only *Canotia holocantha* Torr. (Celastraceae) and "greasewood" have been reported as larval hosts for this species (Fisher 1942).

Chrysobothris (s. str.) *purpureovittata purpureovittata* Horn, 1886. A variety of plants have been reported as larval hosts for this species (Fisher 1942, MacRae 1991, MacRae & Nelson 2003). The following records further expand the list of known larval hosts for this polyphagous species: TEXAS, Brewster Co., Big Bend NP, Boquillas Cyn Trail, em. 1.viii–30.ix.2004 (3) *ex* dead branch *Acacia greggii* coll. 11.iv.2004; Big Bend NP, Chisos Mts Basin, upper Window Trail, em. 1–22.vii.2002 (2) *ex* dead branch *Rhus virens* var. *choriophylla* coll. 22.x.2001; Big Bend NP, Castolon, vic. N of Cottonwood Cpgd, em. 3–15.ix.2002 (2) *ex* dead branch *Zizyphus obtusifolia* coll. 23.x.2001; Hidalgo Co., Bentsen-Rio Grande Valley SP, Rio Grande River Hiking Trail, em. 1–11.vii.2002 (1) *ex* dead branch *Celtis laevigata* coll. 17.x.2001; same locality, em. 18.viii–2.ix.2002 (1) & 16–31.vii.2003 (1) *ex* dead branch *Parkinsonia aculeata* coll. 17.x.2001; same locality, em. 1.viii–15.ix.2002 (3) & 16–31.vii.2003 (1) *ex* dead branch *Celtis pallida* coll. 17.x.2001; Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, em. 25–30.vi.2002 (1) *ex* dead branch *Quercus pungens* var. *vaseyana* coll. 24.x.2001; same locality, em. 1–11.vii.2002 (1) *ex* dead branch *Celtis laevigata* var. *reticulata* coll. 24.x.2001; same locality, em. 12–22.vii.2002 (1) *ex* dead branch *Acacia greggii* coll. 24.x.2001; Starr Co., Falcon Heights, Jct Spur 2098, em. 18.viii–15.x.2002 (5) *ex* dead stem *Karwinskia humboldtiana* coll. 20.x.2001; same locality, em. 18.viii–15.ix.2002 (2) *ex* small dead branch *Pithecellobium ebano* coll. 20.x.2001.

Chrysobothris (s. str.) *purpurifrons* Motschulsky, 1859. CALIFORNIA, San Bernardino Co., San Bernardino Mts, 6 mi N Big Bear Lake, Holcomb Valley, 14.vii.1988 (2) & 28.vi.1990 (24), on *Eriogonum kennedyi* Gray, G. H. Nelson [FSCA, RLWE, TCMC]. Fall (1907) reported adults on *Quercus dumosa*, and Nelson et al. (1996) reported a single specimen reared from *Delphinium* sp. (Ranunculaceae). Chamberlin (1917a) listed *Pinus jeffreyi* Grev. & Balf. and *P. ponderosa* as probable larval hosts but later questioned this (Chamberlin 1926), as those surely refer to *C.* (s. str.) *semisculpta* LeConte.

Chrysobothris (s. str.) *rossi* Van Dyke, 1942. Adults have previously been reared from a variety of hosts (Fisher 1942, Vogt 1949, Barr & Westcott 1976, MacRae & Nelson 2003), to which the following can be added: ARIZONA, Cochise Co., Gleeson, em. 30.vii.1989 (1) *ex* dead branch *Celtis laevigata* var. *reticulata* coll. 27.vii.1987; TEXAS, Brewster Co., Big Bend NP, Chisos Mts Basin, upper Window Trail, em. 12–22.vii.2002 (2) *ex* dead branch *Acacia constricta* coll. 22.x.2001; Big Bend NP, Tornillo Flat, Hwy 385 at Fossil Bone Exhibit, em. 12–22.vii.2002 (1) *ex* dead branch *A. constricta* coll. 23.x.2001; Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, 18.vi–15.x.2002 (29) & em. 1.vii–31.vii.2003 (13) *ex* dead branch *Acacia greggii* coll. 24.x.2001. The rearing record from *Celtis* is the first record of a non-legume larval host for the species.

Chrysobothris (s. str.) *sexsignata* (Say, 1839). This is another highly polyphagous species, with the following records bringing the total number of reported larval hosts to at least three dozen: MISSOURI, Barry Co., Roaring River CA, T22N R27W S36, em. 1–23.v.2001 (2) *ex* dead branch *Quercus muehlenbergii* coll. 7.vi.2001; same locality, em. 24.v–22.vi.2001 (3) *ex* dead branch *Fraxinus quadrangulata* Michx. (Oleaceae) coll. 7.iv.2001; Clark Co., Battle of Athens SP, vic. playground, T67N R7W S30 (NE 1/4), em. 1–30.vi.2003 (2) *ex* dead branch *Carya ovata* coll. 19.iv.2003; Iron Co., Taum Sauk SP, Mina Sauk Falls Trail, T33N R3E S5 (SE 1/4), em. 8–15.v.2001 (2) *ex* dead branch/trunk *Ulmus alata* coll. 3.xii.2000. Two records of

particular interest are as follows: TEXAS, Cameron Co., Brownsville, Audubon Sabal Palm Sanctuary, em. 28.v.1999 (1) *ex* dead branch *Acacia* sp. coll. 10.v.1999, R. Androw & S. M. Clark [TCMC]; Resaca de las Palmas SP, em. 20–30.x.1997 (1) *ex* dead branch *Prosopis* sp. coll. ix.1996, R. Androw & S. M. Clark [TCMC]. These represent the first recorded occurrence of this eastern U.S. species in the Lower Rio Grande Valley of Texas. Another previously unrecorded distribution is represented by the following: ARKANSAS, Benton Co., 16.vii.1932 (1), S. A. Summerland [UAAM]; Polk Co., 28.vii.1960 (1), collector unknown [UAAM].

Chrysobothris (s. str.) *texana* LeConte, 1860. CALIFORNIA, Mono Co., 16.0 mi E Hwy 395 on Hwy 167, em. 1.vi–31.vii.1995 (7) *ex* dead branch *Juniperus occidentalis* Hook. coll. ix.1994; OKLAHOMA, Caddo Co., Red Rock Cyn SP, Hinton, 24.vi.1993 (1), dead wood, collector unknown [CMNH]; TEXAS, Jeff Davis Co., Davis Mts Resort, 4.6 mi N Hwy 116, elev 5800', em. 1–31.vii.1995 (1) *ex* dead branch *Juniperus deppeana* coll. vi.1994. Adults have been reared from several other *Juniperus* spp. as well as *Cupressus arizonica* Greene (Burke 1918, Fisher 1942).

Chrysobothris (s. str.) *trinervia* (Kirby, 1837). CANADA, Québec, Saguenay, Les Escoumins, 23.viii.1980 (1), on dead *Larix laricina*, C. Chantal [TCMC]; same locality, 7.vii.1982 (1) & 17.viii.1983 (2), on dead *Pinus banksiana* Lamb., C. Chantal [TCMC]. This species has been associated with several *Pinus* spp. as well as *Picea* sp. and *Pseudotsuga menziesii* (Burke 1918, Munding 1924, Chamberlin 1926, Bedard 1938), although some records may refer to other species (Barr 1971).

Cypriacis (s. str.) *adjecta* (LeConte, 1854). CALIFORNIA, El Dorado Co., El Dorado NF, Ice House Lake, vic. dam, 2.vii.1995 (1), cut *ex* large dead stump *Abies concolor* (Gord. & Glend.) Lindl. *ex* Hildebr. Adults have been reared from several pinaceous hosts (Chamberlin 1917a, 1924; Barr 1971), but the above record is apparently the first from a species in the genus *Abies*.

Cypriacis (s. str.) *striata* (Fabricius, 1775). This species is associated with *Pinus* spp. and related plant genera throughout the eastern U.S., but to my knowledge has not yet been recorded specifically from: ARKANSAS, Hamburg, no date (1), “from oak,” J. W. Summerland [UAAM].

Dicercia (s. str.) *caudata* LeConte, 1860. This widely distributed species apparently has not previously been recorded from NORTH DAKOTA, Rolette Co., Turtle Mts, 29.vi.1987 (1), collector unknown [NDSU]. Larvae breed in *Alnus* and *Betula* (Blanchard 1889, Nelson 1975).

Dicercia (s. str.) *divaricata* (Say, 1823). WISCONSIN, Forest Co., 2 mi W Jct Hwy 139 & Lilypond, 8.vii.1989 (1), on stump *Populus balsamifera* L. This appears to be one of the more polyphagous species of the genus, having been reared from a variety of deciduous hardwood hosts (Knull 1920, 1925, 1932). It has also been collected on, but not reared from, several gymnospermous plant genera (Nelson 1975, Dearborn & Donahue 1993).

Dicercia (s. str.) *juncea* Knull, 1958. GEORGIA, Clinch Co., 10 mi NE Edith on Hwy 177, 7.vi.2000 (1), on branch living *Cyrilla racemiflora* L. (Cyrillaceae). Adults have also been collected on *Acer* sp. and *Prunus persicae* (L.) Batsch (Knull 1958, Nelson 1975), but no larval hosts have been reported.

Dicercia (s. str.) *lurida* (Fabricius, 1775). MISSISSIPPI, Washington Co., Yazoo NWR, em. 1–10.vi.2000 *ex* log *Carya cordiformis* coll. i.2000, N. M. Schiff; MISSOURI, Crawford Co., Blue Spring Creek CA, T39N R2W S5 (SE¼), em. 16.vii–5.viii.2001 (1) *ex* ½–2" diam. dead branch *Carya laciniosa* coll. 28.iv.2001;

Shannon Co., Ozark NSR, Round Spring RA, Middle Access Cpgd, T30N R4W S20 (NW 1/4), em. 1.vii–16.viii.2003 (8) *ex* dead trunk/main branch *Salix exigua* coll. 1.v.2003. This species has been reared from several plant genera but is most frequently associated with *Carya* spp. (Knull 1920, 1930, Nelson 1975, Hovore et al. 1978, Nelson & MacRae 1990, MacRae 1991, Nelson et al. 1996).

Dicerca (s. str.) *pugionata* (Germar, 1824). MISSOURI, Taney Co., Mincy CA, along Fox Creek, T21N R20W S27, em. 16.vii–30.ix.2003 (3) *ex* lower trunk dead *Alnus serrulata* (Ait.) Willd. coll. 17.iii.2002. Most frequently associated with *Physocarpus opulifolius* (L.) Maxim. (Rosaceae) (Knull 1922, 1925, Champlain & Knull 1925, MacRae 1991), this species has also been reared from *A. incana* and *Hamamelis virginiana* L. (Hamamelidaceae) (Blanchard 1889, Knull 1920).

Lampetis (*Spinthoptera*) *drummondi* (Lapore & Gory, 1836). TEXAS, Brewster Co., Big Bend NP, Chisos Mts Basin, upper Window Trail, 22.x.2001 (5), on dead branch *Rhus virens* var. *choriophylla*. Larval hosts remain unknown for this species despite its abundance, broad occurrence, and the large variety of plants on which adults have been collected (Vogt 1949, Dobson & Watts 1956, Nelson 1986, Van Pelt 1999, Corona 2005).

Mastogenius crenulatus Knull, 1934. ARKANSAS, Pope Co., Dardanelle, along Arkansas River, 25.v.1995 (2), R. Androw & K. Will [RAAC]; MISSOURI, Butler Co., Big Cane CA, vic. W parking lot, T22N R5E S35 (NW 1/4), em. 1–23.v.2002 (6) *ex* dead branch *Quercus phellos* cut 8.iv.2001 & coll. 31.iii.2002; OHIO, Franklin Co., Columbus, Ohio State University Campus near Main Library, em. 10.vi.1997 (1) *ex* 2nd year pruned branch *Quercus alba* coll. iii.1997, R. Androw & G. Keeney [TCMC]. Previously recorded larval hosts include *Cercis canadensis*, *Quercus* sp., *Carya illinoensis*, and *Diospyros texana* (Hespenheide 1973; Nelson et al. 1981, 1996).

Pachyschelus nicolayi Obenberger. The following record documents the occurrence of this widely distributed species in TENNESSEE, Warren Co., McMinnville, TSU NRC, 17.viii.2005 (3), J. P. Basham. Hespenheide (2003) recently clarified the taxonomic status of this species, which has long been confused with *P. schwarzi* Kerremens.

Paragrilus tenuis (LeConte, 1866). MISSOURI, St. Clair Co., Taberville Access, T37N R28W S3 (SW 1/4), 3.viii.2003 (1), on foliage *Hibiscus laevis*; Stoddard Co., Otter Slough CA, Miller Woods NA, T24N R9E S17, em. 1–31.v.2003 (4) *ex* lower stem senesced *Hibiscus moscheutos* ssp. *lasiocarpus* (Cav.) O. J. Blanchard coll. 21.iii.2003. Adults have also been reared from *H. moscheutos* L. (Weiss & Dickerson 1919, Knull 1922).

Paratyndaris (*Knulliella*) *chamaeleonis* (Skinner, 1903). Nelson & Bellamy (2004) recorded *Parkinsonia aculeata* and *Pithecellobium ebano* as the first known larval hosts for this species. Two additional larval hosts have also been found: TEXAS, Hidalgo Co., Santa Ana NWR, vic. Cattail Lakes, em. 11.vi–10.vii.2004 (6) *ex* small dead branch *Acacia greggii* var. *wrightii* (Benth.) Isley & 11.vi–31.viii.2004 (21) *ex* small dead trunk *Diospyros texana*, both coll. 7.iv.2004.

Phaenops obtusa Horn, 1882. This species occurs across the southeastern U.S., but specific records are apparently lacking from: MISSISSIPPI, George Co., 11 mi SW Lucedale, Pascagoula River, 30°48'00" N, 88°42'00" W, 25.v.1995 (1), K. Will & R. Androw [RAAC].

Poecilonota californica Chamberlin, 1922. CALIFORNIA, Ventura Co., 2 mi E Munson Cyn on Sespe Creek, 20.vi.1992 (1), beaten from *Populus fremontii* S. Wats. The species breeds in *P. tremuloides* Michx. (Chamberlin 1922) and probably other species in the genus.

Poecilonota cyanipes (Say, 1823). MISSOURI, Clark Co., Rose Pond NA, edge of Rose Pond, T64N R6W S24 (NW $\frac{1}{4}$), em. 1-17.v.2002 (3) *ex* dead branch *Salix nigra* coll. 7.iv.2002. Wellso et al. (1976) reported this species breeding in galls of *Agrilus criddlei* Frost on *Salix* sp., but all other larval host reports are for species in the related genus *Populus* (Knull 1920, Hofer 1921).

Poecilonota salixi Chamberlin, 1925. CALIFORNIA, Kern Co., 2.2 mi W Hwy 395 on Grapevine Cyn Road, 30.v.1993 (2), cut *ex* dead trunk *Salix lucida* ssp. *lasiandra*. This species was described from specimens reared from an unidentified *Salix* sp. (Chamberlin 1925).

Polycesta (Arizonica) arizonica arizonica Schaeffer, 1906. TEXAS, Brewster Co., Big Bend NP, Chisos Mts Basin, upper Window Trail, 12.iv.2004 (1), dead adult cut *ex* dead branch *Quercus gravesii* G. Sudworth; Jeff Davis Co., Davis Mts SP, Limpia Cyn PA, em. 16-31.vii.2003 (2) *ex* dead branch *Quercus pungens* var. *vaseyana* coll. 24.x.2001. The species has also been reared from *Q. emoryi* (Nelson & MacRae 1990).

Polycesta (Tularenisia) californica LeConte, 1857. CALIFORNIA, Colusa Co., 15 mi SW Williams on Hwy 20, em. 23.iv-30.vi.1992 (9) *ex* dead trunk *Quercus agrifolia* Née coll. 23.iv.1992; El Dorado Co., Folsom SRA, 1.2 mi N Jct Green Valley & Salmon Falls Roads, em. 1-22.vi.1995 (3) *ex* 4-5" diam. dead branch *Quercus lobata* Née coll. 1.iv.1995. Chamberlin (1926, 1933) listed a wide variety of plants as larval hosts for this species, many of which likely represent misidentifications. However, *Quercus* does appear to be a favored host genus.

Ptosima walshii LeConte, 1866. MISSOURI, Boone Co., Prathersville, 0.5 mi N Jct Hwy 63 on W Outer Road, T49N R13W S13 (SE $\frac{1}{4}$), em. 10.iv-7.v.2002 (5), 13.iv-11.v.2003 (7) & 1-17.iv.2004 (14) *ex* dead branch *Quercus macrocarpa* coll. 4.v.2001. One adult was also beaten from the branch at the time it was collected. Adults have previously been reported on this plant (Nelson et al. 1981), but this represents the first rearing of this rarely collected species.

Spectralia prosternalis (Schaeffer, 1904). Little has been recorded for this species since it was described from specimens collected at Esperanza Ranch, Brownsville, Texas. Vogt (1949) reported the species possibly breeding on *Diospyros texana* west of Brownsville. Knull (1950) did record *D. texana* as a larval host for this species, but the record was based on misidentified specimens of *S. robusta* (Chamberlin) (Nelson 1968a, Knull 1970). This led to speculation that Vogt's record might also refer to *S. robusta* (Nelson 1968a); however, the following record appears to confirm Vogt's observation and extends the known geographic range of the species another 50 miles to the west: TEXAS, Hidalgo Co., Santa Ana NWR, vic. Cattail Lakes, 7.iv.2004 (1), cut *ex* dead trunk *Diospyros texana*. The specimen was cut from sound, dry, dead wood, while *S. robusta* appears to prefer partly living trees for larval development.

Spectralia roburella (Knull, 1941). This species was described from specimens collected on *Quercus* sp. in the Davis Mts (Knull 1941), but the following document the first specific adult and larval host records for this attractive species: TEXAS, Jeff Davis Co., 9 mi S Ft. Davis on Hwy 17, 19.vi.1963 (19), 18.vi.1965 (16), 12.vi.1968 (3), 27.vi.1971 (1) & 24.vi.1999 (1), beaten from *Quercus grisea*, G. H. Nelson

[FSCA]; 4 mi SE Ft. Davis on Hwy 118, 3.vii.1977 (1), beaten from *Q. grisea*, G. H. Nelson [FSCA]; Val Verde Co., Seminole Cyn SP, 0.5 mi S Rio Grande Trailhead, cut 10.iv.2004 (2) & em. 1–10.v.2004 (1) *ex* dead branch *Quercus pungens* var. *vaseyana* coll. 10.iv.2004.

Spectralia robusta (Chamberlin, 1920). This species has been encountered primarily around the Pecos and Devils Rivers west of Del Rio, Texas (Knull 1937a, Nelson 1968a). An interesting eastern range extension is documented by the following record (approximately 170 miles east of Del Rio): TEXAS, **Bexar Co.**, San Antonio, 2.0 mi SE Loop 1604 on Hwy 151, em. 6.vii–10.viii.1998 (10) *ex* half-live/half-dead trunk *Diospyros texana* coll. 5.x.1997. Vogt (1949) did not encounter this species in the Lower Rio Grande Valley, but its occurrence there is confirmed by the following record: TEXAS, **Hidalgo Co.**, Santa Ana NWR, 22.vi.1968 (1), R. L. Heitzman [TCMC, courtesy of R. E. Heitzman].

Texania campestris (Say, 1823). This species occurs broadly across the eastern U.S. and southeastern Canada, but specific records are apparently lacking from: ILLINOIS, Lawrence Co., 24.v.1936 (1), 28.v.1938 (1), & 16–17.ix.1939 (2), S. A. Summerland & C. H. Arnold [UAAM].

Trigonogya reticulaticollis (Schaeffer, 1904). Nothing has been reported for this species since Knull (1937b) collected it on "*Fraxinus caroliniana*" at the type locality (Brownsville, Texas). The host surely refers to *F. berlandieriana* DC., which is the only species of the genus occurring in south Texas. The following record confirms this as a larval host and extends the known geographical range of the species approximately 50 miles west along the Rio Grande River: TEXAS, Hidalgo Co., Santa Ana NWR, vic. Willow Lakes, em. 1.v–30.vi.2004 (16) *ex* dead branch *Fraxinus berlandieriana* coll. 7.iv.2004.

Xenorhipis brendeli LeConte, 1866. MISSOURI, Adair Co., Thousand Hills SP, along Hickory Trail, T62N R16W S11 (SE 1/4), em. 1–15.vii.2003 (1) *ex* dead branch *Quercus alba* coll. 7.iv.2003; Crawford Co., Blue Spring Creek CA, T39N R2W S5 (SE 1/4), em. 9.vi–15.vii.2001 (6) *ex* 1/2–2" diam. dead branch *Carya laciniosa* coll. 28.iv.2001. This species is not commonly encountered but has been reared abundantly from *C. illinoensis* (Wellso 1966). Other larval hosts include *C. ovata* and *Betula nigra* (MacRae 1991, MacRae & Nelson 2003). *Xenorhipis vej dovskyi* Obenberger, 1939:338 is a synonym of this species (Helfer 1952), despite its inclusion in a recent checklist of the species in this genus (Bellamy 1991).

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