

Last updated: 6 December 2020

EUCERCERIS

Eucerceris Cresson, 1865c:104. Type species: *Eucerceris fulvipes* Cresson, 1865 [= *Cerceris cressoni* Schletterer, 1887], designated by Pate, 1937c:27.

Status: Alexander, 1992a, found *Eucerceris* to be paraphyletic with respect to *Cerceris*, but did not formally synonymize these genera.

Revision: Scullen, 1968b (world species); R. Bohart and Grissell, 1975:32 (species of California).

Male pheromone: Clarke, Dani, Jones, Morgan, and Schmidt, 2001.

1. *angulata* Rohwer

Eucerceris angulata Rohwer in Grossbeck, 1912b:326, ♀. Holotype: ♀, Mexico: Baja California Sur: between San José del Cabo and Triunfo (AMNH). – Scullen, 1939:56 (in revision of *Eucerceris*), 1948:157 and 158 (in key to *Eucerceris*), 180 (Mexico: Baja California); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Scullen, 1968b:9 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1738 (in catalog of North American Hymenoptera); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

2. *arenaria* Scullen

Eucerceris arenaria Scullen, 1948:156, 157, ♀, ♂ (in key to *Eucerceris*). Holotype: ♀, USA: California: Helendale (Univ. California Riverside). – Scullen, 1949a:168 (redescription); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); LaBerge, 1956:528 (paratypes in Snow Entomological Museum); Scullen, 1968b:13 (in revision of *Eucerceris*); Alcock, 1975e:533 (male mating strategies); R. Bohart and Grissell, 1975:28 (in revision of North American Philanthinae); Hurd and Linsley, 1975:117 (Arizona: Pima County: 18 mi. W Tucson; California: Riverside County: Chiriaco Summit; on flowers of *Larrea tridentata* (De Candolle) Coville, Zygophyllaceae); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1738 (in catalog of North American Hymenoptera); Rust, Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); S. Frommer, 1988:93 (California: Riverside County: Deep Canyon; as *avenaria*).

3. *atrata* Scullen

Eucerceris atrata Scullen, 1968b:15, ♀, ♂. Holotype: ♀, Mexico: San Luis Potosí: 17 mi. northeast of San Luis Potosí (USNM). – R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

4. *baccharidis* Scullen

Eucerceris baccharidis Scullen, 1968b:17, ♀, ♂. Holotype: ♀, Mexico: San Luis Potosí: 17 mi. northeast of San Luis Potosí (USNM). – R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

5. *barri* Scullen

Eucerceris barri Scullen, 1968b:19, ♀, ♂. Holotype: ♀, USA: Oregon: Lake County: Jacob's Cabin on Hart Mountain (USNM). – R. Bohart and Grissell, 1975 (as synonym of *Eucerceris similis*); R. Bohart in Bohart and Menke, 1976:592 (as new synonym of *Eucerceris similis*); G. Ferguson, 1982:152 (valid species; redescription).

6. *bitruncata* Scullen

Eucerceris bitruncata Scullen, 1939:35, ♀. Holotype: ♀, USA, Texas: San Antonio (USNM). – Scullen, 1948:158 (in key to *Eucerceris*), 1949a:171 (may be synonym of *Eucerceris pimarum*; Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Scullen, 1965:135 (as synonym of *Eucerceris pimarum*); Krombein in Krombein and Burks, 1967:418 (as new synonym of *Eucerceris pimarum*; Scullen, 1968b:52 (as synonym of *Eucerceris pimarum*); R. Bohart in R. Bohart and Menke, 1976:591 (as valid species, in checklist of world Sphecidae); Krombein, 1979b:1738 (in catalog of North American Hymenoptera); G. Ferguson, 1981:177 (discussion of synonymy); Amarante, 2002:62 (in catalog of Neotropical Crabronidae).

Eucerceris triciliata Scullen, 1948:156, ♂ (in key to *Eucerceris*). Holotype (Scullen, 1949a:172): ♂, USA: Texas: 20 mi. north of El Paso (CAS). Synonymized with *Eucerceris pimarum* by Scullen, 1965:135 and with *Eucerceris bitruncata* by G. Ferguson, 1981:177. – Scullen, 1949a:172 (description); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Muma, 1952:26 (paratype in UNL); Krombein, 1960b:77 (nest and prey), 1961:300 (prey: weevil *Minyomeres languidus* Horn); Evans, 1964b:278 (description of larva); Tsuneki, 1965d:3 (prey record summary: Curculionidae); Evans, 1966:146 (citation of Krombein, 1960b); Krombein in Krombein and Burks, 1967:418 (synonymy with *Eucerceris pimarum* recorded); Scullen, 1968b:52 (as synonym of *Eucerceris pimarum*); Oehlke and Wudowenz, 1974:426 (one paratype in DEI); Steiner, 1986:114 (references to publications on nesting habits); Dollfuss, 1989:9 (paratype in NHMW).

7. *brunnea* Scullen

Eucerceris brunnea Scullen, 1948:159, ♀. Holotype: ♀, Mexico: Hidalgo: Jacala (MCZ). – Scullen, 1948:157 (in key to *Eucerceris*), 1957:155 (Mexico: Jalisco), 1968b:22 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); G. Ferguson, 1982:153 (description of ♂, diagnostic characters); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

As *Eucerceris velutina* (part of males): Scullen, 1948:160 (original description) and 1968b:69 (in revision of *Eucerceris*), corrected to *Eucerceris brunnea* by G. Ferguson, 1982:153.

8. *canaliculata* (Say)

Philanthus canaliculatus Say, 1823:80, ♂. Holotype: ♂, USA: Arkansas: no specific locality (destroyed). Neotype: ♂, USA: Kansas: no specific locality (ANSP), designated by Scullen, 1939:49. – Le Conte, 1859a:111 (original description copied), 167 (reference to original description); Cresson, 1862:236 (in catalog of North American Hymenoptera). – **As *Cerceris canaliculatus***: Schletterer, 1887:488 (new combination, in checklist of world *Cerceris*). – **As *Cerceris canaliculata***: Dalla Torre, 1890:200 (synonymy with *bidentata* reported), 1897:454 (in catalog of world Hymenoptera). – **As *Eucerceris canaliculatus***: Cresson, 1865c:112 (new combination, original description copied); Packard, 1866:58 (in key to *Eucerceris*), 59 (bibliographic reference, geographic distribution); Patton, 1879d:357 (northwestern Kansas, redescription); Snow, 1881:95 (in checklist of Hymenoptera of Kansas: Wallace County: no specific locality); Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera, as *canaliculatus*); Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado); Dalla Torre, 1890:200 (*canaliculata* is the valid name for *bidentata*); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Bridwell, 1899:209 (Kansas: no specific locality); Cockerell, 1899a:141 (New Mexico); H. Smith, 1908:371 (in revision of Nebraskan Sphecidae). – **As *Eucerceris canaliculata***: Viereck and Cockerell, 1904a:88 (New Mexico); Snow, 1906:135 (Arizona, as *canaliculatus*); Mickel, 1918b:455 (in catalog of Nebraskan Sphecidae); Scullen, 1948:156 and 157 (in key to *Eucerceris*), 179 (Texas: El Paso area; Mexico: Chihuahua and Baja California); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Linsley, 1962:158 (sleeping aggregations); Scullen, 1968b:23 (in revision of *Eucerceris*; as *canaliculata canaliculata*); Alcock, 1975e:536 (male mating strategies); R. Bohart and Grissell, 1975:29 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1738 (in catalog of North American Hymenoptera); G. Ferguson, 1981:180 (discussion of synonymy), 1982:155 (synonymy); Radović,

1985:66 (sting apparatus analyzed); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

Cerceris bidentata Say, 1823:80, ♀. ... USA: Arkansas: ... (lost). Synonymized with *Eucerceris canaliculatus* by Patton, 1879:357 and 359 (discussion of types). – Cresson, 1862:237 (in catalog of North American Hymenoptera), 1865c:130 (original description copied); Packard, 1866:64 (bibliographic reference); Cresson, 1887:282 (listed as synonym of *Eucerceris canaliculatus*); Schletterer, 1887:487 (in checklist of world *Cerceris*); Dalla Torre, 1890:200 (*bidentata* is synonym of *canaliculata*).

Aphilanthops marginipennis Cameron, 1890a:105, ♂. Holotype or syntypes: ♂, Mexico: Veracruz: Atoyac (BMNH). Synonymized with *Eucerceris rubripes* by Scullen, 1939:26 and with *Eucerceris canaliculata* by G. Ferguson, 1982:155 (extensive discussion). – **As *Eucerceris marginipennis***: Kohl, 1891:368, footnote (new combination). – **As *Cerceris marginipennis***: Dalla Torre, 1897:467 (new combination, in catalog of world Hymenoptera). – **As *Aphilanthops marginipennis***: Ashmead, 1899d:296 (new combination, in checklist of North American Crabronidae).

Eucerceris canaliculata var. *atronitida* Scullen, 1939:50, ♀, ♂. Holotype: ♂, USA: Utah: Beaver Canyon (USNM). Synonymized with *Eucerceris canaliculata* by Bohart and Grissell, 1975:29 and by R. Bohart in Bohart and Menke, 1976:29 (as new synonym). – Scullen, 1948:157 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae). – **As *Eucerceris canaliculata atronitida***: Scullen, 1968b:25 (new status, in revision of *Eucerceris*).

Eucerceris biconica Scullen, 1948:1157, ♀ (in key to *Eucerceris*). Holotype (Scullen, 1949a:178): ♀, USA: Texas: 15 mi north of El Paso (CAS). Synonymized with *Eucerceris canaliculata atronitida* by Scullen, 1968b:25. – Scullen, 1949a:178 (description); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera).

Eucerceris zimapanensis Scullen, 1968b:72, ♂. Holotype: ♂, Mexico: Zacatecas: 9 mi N Ojo Caliente (CAS). Synonymized with *Eucerceris canaliculata* by G. Ferguson, 1981:180. – R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Amarante, 2005a:13 (correction to his 2002 catalog).

9. *cavagnaroi* Scullen

Eucerceris punctifrons cavagnaroi Scullen, 1968b:53, ♀. Holotype: ♀, El Salvador: Volcán de San Salvador (UCD). – R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae). – **As *Eucerceris cavagnaroi***: G. Ferguson, 1982:155 (new status; diagnostic characters); Amarante, 2005a:13 (correction to his 2002 catalog).

10. *cerceriformis* Cameron

Eucerceris cerceriformis Cameron, 1891:130, ♀. Holotype or syntypes: ♀, Mexico: no specific locality (MHNG). – Ashmead, 1899d:295 (in checklist of North American Crabronidae); Scullen, 1939:46 (in revision of *Eucerceris*), 1948:158 (in key to *Eucerceris*), 1968b:26 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae). – **As *Cerceris cerceriformis***: Dalla Torre, 1897:455 (in catalog of world Hymenoptera, new combination).

11. *conata* Scullen

As *Eucerceris elegans*: Mickel, 1916a:413 (♀) and 1918a:456 (in catalog of Nebraskan Sphecidae), corrected to *Eucerceris conata* by Scullen, 1939:34.

Eucerceris conata Scullen, 1939:34, ♀. Holotype: ♀, USA: Nebraska: Halsey (Univ. Minnesota, but UNL according to Muma, 1952:19). – Scullen, 1948:158 (in key to *Eucerceris*), 1949a:172 (Texas: El Paso area); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Muma, 1952:18 (holotype in UNL); Scullen, 1965:132 (as new synonym of *Eucerceris apicata*); Krombein in Krombein and Burks, 1967:418 (new synonym of *Eucerceris api-*

cata); R. Bohart in Bohart and Menke, 1976:591 (new status, in checklist of world Sphecidae); Krombein, 1979b:1738 (in catalog of North American Hymenoptera); G. Ferguson, 1981:178 (discussion of synonymy); Clarke, Dani, Jones, Morgan, and Schmidt, 2001:1438 ((*Z*)-3-hexenyl (*R*)-3-hydroxybutanoate, a male pheromone used for marking territories); Amarante, 2002:62 (in catalog of Neotropical Crabronidae).

Eucerceris hespera Scullen, 1948:171, ♂ (in key to *Eucerceris*). Holotype (Scullen, 1949a:171): ♂, USA: Texas: 25 mi east of El Paso (CAS). Synonymized with *Eucerceris apicata* by Scullen, 1965:132 and by Krombein in Krombein and Burks, 1967:418 (as new synonym) and with *Eucerceris conata* by G. Ferguson, 1981:178. – Scullen, 1949a:171 (description); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Oehlke and Wudowenz, 1974:423 (one paratype in DEI).

12. *cressoni* (Schletterer)

Eucerceris fulvipes Cresson, 1865c:111, ♀. Lectotype: ♀, USA: Colorado: Rocky Mountains: no specific locality (ANSP), designated by Cresson, 1916:100. – Packard, 1866:58 (in key to *Eucerceris*), 59 (bibliographic reference, geographic distribution); Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera); Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado), 1899d:295 (in checklist of North American Crabronidae; as *flavipes*); Viereck and Cockerell, 1904a:88 (New Mexico); H. Smith, 1908:372 (Nebraska); Stevens, 1917:422 (North Dakota: Bismarck); Mickel, 1918b:456 (in catalog of Nebraskan Sphecidae); Scullen, 1939:28 (in revision of *Eucerceris*); Strickland, 1947:130 (Canada: Alberta: Lethbridge, Medicine Hat); Scullen, 1948:156 and 158 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1968b:33 (in revision of *Eucerceris*); Evans, 1970:502 (Wyoming: Jackson Hole, nesting habits); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Krombein, 1979b:1739 (in catalog of North American Hymenoptera, nesting sites, list of parasites and prey); Spofford, Kurczewski, and Downes, 1989:260 (reference to publication on nest parasite *Taxigramma heteroneura* (Meigen), a miltogrammine fly). – **As *Cerceris fulvipes***: Patton, 1879:360 (new combination, Kansas, redescription).

Cerceris cressoni Schletterer, 1887:489. Substitute name for *Cerceris fulvipes* (Cresson, 1865) Schletterer, 1887, junior secondary homonym of *Cerceris fulvipes* Eversmann, 1849. – Dalla Torre, 1897:456 (in catalog of world Hymenoptera; as *cressonii*). – **As *Eucerceris cressoni***: R. Bohart and Grissell, 1975:29 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Evans and O'Neill, 1985:1036 (male territorial behavior).

Eucerceris simulatrix Viereck and Cockerell, 1904a:89, ♂. Holotype: ♂, USA: New Mexico: Las Vegas (ANSP). Synonymized with *Eucerceris cressoni* by Scullen, 1939:28 and 29. – Cresson, 1928:50 (holotype in ANSP); Scullen, 1959:108 (misspelled type label by E. Cresson).

13. *ferruginosa* Scullen

Eucerceris ferruginosa Scullen, 1939:45, ♀. Holotype: ♀, Mexico: Baja California Norte: Angeles Bay (CAS). – Scullen, 1948:159 (in key to *Eucerceris*), 1949a:178 (Mexico: Baja California: 20 mi N Mesquital); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Scullen, 1968b:30 (in revision of *Eucerceris*); R. Bohart and Grissell, 1975:31 (as new synonym of *Eucerceris nevadensis*); G. Ferguson, 1981:172 (valid species, synonymy, recognition characters); Amarante, 2002:62 (in catalog of Neotropical Crabronidae). – **As *Eucerceris nevadica ferruginosa***: R. Bohart in Bohart and Menke, 1976:592 (new status, in checklist of world Sphecidae). – **As *Eucerceris elegans ferruginosa***: Krombein, 1979b:1739 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

Eucerceris baja Scullen, 1948:156, ♂ (in key to *Eucerceris*). Holotype (Scullen 1949a:170): ♂, Mexico: Baja California Norte: 20 mi. north of Mezquital (CAS). Synonymized with *Eucerceris ferruginosa* by G. Ferguson, 1981:172. – Scullen, 1949a:165 (description); Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

14. *flavocincta* Cresson

Eucerceris flavocincta Cresson, 1865c:109, ♀ (as *flavocinctus*, incorrect original termination). Lectotype: ♀, USA: Colorado: Rocky Mountains: no specific locality (ANSP), designated by Cresson, 1916:100. – Packard, 1866:58 (in key to *Eucerceris*), 59 (bibliographic reference, geographic distribution); Cresson, 1882c: vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera); Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado), 1899d:295 (in checklist of North American Crabronidae); Scullen, 1939:23 (in revision of *Eucerceris*); Strickland, 1947:130 (Canada: Alberta: Medicine Hat); Scullen, 1948:155 and 158 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); R. Bohart and Powell, 1956:143 (nest and prey); Evans, 1957b:88 (description of larva); Spencer, 1957:23 (Canada: British Columbia: Oliver to Chilcotin, near Nanaimo); Krombein, 1958f:197 (in supplement to catalog of North American Hymenoptera: prey: *Dyslobus* sp., a curculionid); Tsuneki, 1965d:3 (prey record summary: Curculionidae); Krombein in Krombein and Burks, 1967:418 (citation of Evans, 1957); Scullen, 1968b:31 (in revision of *Eucerceris*); Evans, 1970:494 (Wyoming: Jackson Hole, nest structure, prey); Horning and Barr, 1970:106 (USA: Idaho: Craters of the Moon National Monument); Scullen and Wold, 1970:213 (distribution, summary of prey records); R. Bohart and Grissell, 1975:30 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Steiner, 1978b:492 (male perching behavior); Krombein, 1979b:1739 (in catalog of North American Hymenoptera, nesting sites, parasite, list of prey); Evans and O'Neill, 1985:1033 (male territorial behavior); Radović, 1985:66 (sting apparatus analyzed); Blades and Maier, 1996:72 (Canada: British Columbia: Osoyoos - Mount Kobau area at 119°40'W 49°05'N); Buck, 2004:28 (in checklist of Crabronidae of Ontario, Canada, tentative record), 74 (questionable record from Ontario: Ottawa); Ratzlaff, 2016:28 (Canada: British Columbia: from Spencer, 1957). – As *Cerceris flavocincta*: Schletterer, 1887:492 (new combination, in checklist of world *Cerceris*, as *flavocinctus*); Dalla Torre, 1897:460 (in catalog of world Sphecidae).

Eucerceris cingulata Cresson, 1865c:150, ♂ (as *cingulatus*, incorrect original termination). Lectotype: ♂, USA: Colorado: Rocky Mountains: no specific locality (ANSP), designated by Cresson, 1916:99. Synonymized with *Eucerceris flavocincta* by Cresson, 1887:281. – Packard, 1866:58 (in key to *Eucerceris*), 59 (bibliographic reference, geographic distribution)). – As *Cerceris cingulatus*: Schletterer, 1887:488 (new combination, in checklist of world *Cerceris*).

Eucerceris striareata Viereck and Cockerell, 1904a:84, ♀. Holotype: ♀, USA: New Mexico: White Oaks (ANSP). Synonymized with *Eucerceris flavocincta* by Scullen, 1939:23 and 25. – Cresson, 1928:50 (holotype in ANSP).

Eucerceris chapmanae Viereck and Cockerell, 1904a:84, ♂. Holotype: ♂, USA: New Mexico: White Oaks (ANSP). Synonymized with *Eucerceris flavocincta* by Scullen, 1939:223 and 25. – Cresson, 1928:48 (holotype in ANSP).

15. *geboharti* G. Ferguson

Eucerceris geboharti G. Ferguson, 1982:147, ♀, ♂. Holotype: ♀, USA: Utah: Garfield County: Boulder (UCD).

16. *lacunosa* Scullen

Eucerceris lacunosa Scullen, 1939:19, ♂. Holotype: USA: Arizona: Bill Williams Fork (Kansas Univ.). – Scullen, 1948:155 (in key to *Eucerceris*), 159 (additional records from Arizona); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); LaBerge, 1956:526 (holotype in Snow Entomological Museum); Krombein in Krombein and Burks, 1967:418 (*arizonensis* is a synonym); Scullen, 1968b:34 (in revision of *Eucerceris*; as *lacunosa lacunosa*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1739 (in catalog of North American Hymenoptera); G. Ferguson, 1981:174 (discussion of synonymy); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:151 (number of ovarioles).

Eucerceris arizonensis Scullen, 1939:20, ♀. Holotype: ♀, USA: Arizona: Osler in Huachuca Mountains (Cornell Univ.). Synonymized with *Eucerceris lacunosa* by Scullen, 1961:48. – Scullen, 1948:157 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Evans and Linsley, 1960:32 (casual member of sleeping aggregation at Southwest Research Station, Arizona).

Eucerceris lacunosa sabinasae Scullen, 1968b:36, ♂. Holotype: ♂, Mexico: Coahuilla: 23 mi N Sabinas (UCD). Synonymized with *Eucerceris lacunosa* by G. Ferguson, 1981:175. – R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1739 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

17. *lapazensis* Scullen

Eucerceris lapazensis Scullen, 1968b:37, ♀. Holotype: ♀, Mexico: Baja California Sur: La Paz (CAS). – R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); G. Ferguson, 1981:181 (description of ♂, diagnostic characters); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

18. *melanosa* Scullen

Eucerceris melanosa Scullen, 1948:163, ♂. Holotype: ♂, Mexico: Puebla: Tehuacán (USNM). – Scullen, 1948:156 (in key to *Eucerceris*), 1968b:38 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

Eucerceris menkei Scullen, 1968b:42, ♀. Holotype: ♀, Mexico, Oaxaca: 10 mi. northwest of Tamazulapán (UCD). Synonymized with *Eucerceris melanosa* by G. Ferguson, 1982:156. – R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

19. *melanovittata* Scullen

Eucerceris melanovittata Scullen, 1948:164, ♂. Holotype: ♂, USA: Texas: El Paso County: 25 mi. east of El Paso (CAS). – Scullen, 1948:156 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1968b:39 (in revision of *Eucerceris*; part of males; dark males = *Eucerceris melleoides*; ♀ = *Cerceris sculleni*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1739 (in catalog of North American Hymenoptera); G. Ferguson, 1982:158 (♀; comparison with *Eucerceris arenaria*); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae); van Pelt, 2002:132 (in list of species described from Big Bend National Park, Texas).

20. *mellea* Scullen

Eucerceris mellea Scullen, 1948:156, 158, ♀, ♂ (in key to *Eucerceris*). Holotype (Scullen, 1949a:165): ♀, USA: Texas: Chisos Mountains in Big Bend National Park (CAS). – Scullen, 1949a:165 (description); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Muma, 1952:26 (paratype in UNL); Scullen, 1968b:41 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1739 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae); van Pelt, 2002:132 (in list of species described from Big Bend National Park, Texas).

21. *melleoides* G. Ferguson

Eucerceris melleoides G. Ferguson, 1982:149, ♀, ♂. Holotype: ♀, Mexico, Coahuila: Los Pinos 19 mi. southeast of Saltillo (CAS).

As *Eucerceris melanovittata* (dark males only): Scullen, 1968b:39, corrected to *Eucerceris melleoides* by G. Ferguson, 1982:158.

22. *montana* Cresson

Eucerceris montana Cresson, 1882c:viii, ♀, ♂ (as *montanus*, incorrect original termination). Lectotype: ♀, USA: Montana: no specific locality (ANSP), designated by Cresson, 1916:101. – Cresson, 1887:281 (in catalog of North American Hymenoptera, as *montanus*); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Cockerell, 1899a:141 (New Mexico); Viereck and Cockerell, 1904a:86 (New Mexico); Mickel, 1918b:456 (in catalog of Nebraskan Sphe-

cidae); Scullen, 1939:54 (in revision of *Eucerceris*), 1948:157 and 158 (in key to *Eucerceris*), 180 (southern Arizona); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1968b:6 and 7 (in key to *Eucerceris*); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Amarante, 2002:62 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae). – **As *Cerceris montana***: Dalla Torre, 1890:201 (new combination, in catalog of world Sphecidae).

Cerceris sonorensis Cameron, 1891a:129, ♂. Holotype or syntypes: ♂, Mexico: n. Sonora: no specific locality (BMNH). Synonymized with *Eucerceris montana* by Scullen, 1961:49. – Dalla Torre, 1897:477 (new combination, in catalog of world Hymenoptera); Ashmead, 1899d:296 (in checklist of North American Crabronidae); Krombein in Krombein and Burks, 1967:418 (Scullen's synonymy reported).

23. *morula* Scullen

Eucerceris morula morula Scullen, 1968b:49, ♀, ♂. Holotype: ♀, Mexico: San Luis Potosí: 17 mi northeast of San Luis Potosí (USNM). – R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1739 (in catalog of North American Hymenoptera); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

Eucerceris morula albarenae Scullen, 1968b:46, ♀, ♂. Holotype: ♀, USA: New Mexico: Otero County: 31 mi northeast of Las Cruces (USNM). Synonymized with *Eucerceris morula* by G. Ferguson, 1981:176. – R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); Krombein, 1979b:1739 (in catalog of North American Hymenoptera).

24. *nevadensis* (Dalla Torre)

Eucerceris elegans Cresson, 1879:xxiii, ♂. Lectotype: ♂, USA: Nevada: no specific locality (ANSP), designated by Cresson, 1916:100. – Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera); Ashmead, 1899d:295 (in checklist of North American Crabronidae); nec Mickel, 1916a:413 and 1918b:456 (= *conata*); Scullen, 1939:32 (in revision of *Eucerceris*; ♀ = *Eucerceris pimarum*), 1948:156 and 159 (in key to *Eucerceris*), 1949a:171 (*pimarum* and *hespera* may be synonyms); Scullen in Muesebeck et al., 1951:1011 (in catalog of North American Hymenoptera); Scullen, 1965:132 (description of ♀), 1968b:27 (in revision of *Eucerceris*; as *elegans elegans*); Krombein in Krombein and Burks, 1967:418 (*elegans* is secondary homonym; *nevadensis* is valid); Krombein, 1979b:1739 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae). – **As *Cerceris elegans***: Dalla Torre, 1890:201 (new combination, in catalog of world Sphecidae).

Cerceris nevadensis Dalla Torre, 1890:201 (as *Nevadensis*, incorrect original capitalization). Substitute name for *Cerceris elegans* (Cresson, 1879) Dalla Torre, 1890, junior secondary homonym of *Cerceris elegans* Eversmann, 1849. – Dalla Torre, 1897:468 (in checklist of world Hymenoptera). – **As *Eucerceris nevadensis***: R. Bohart and Grissell, 1975:31 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:591 (in checklist of world Sphecidae); G. Ferguson, 1981:174 (discussion of synonymy); Rust, Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

Eucerceris elegans monoensis Scullen, 1968b:28, ♀, ♂. Holotype: ♀, USA: California: Mono County: Grant Lake (CAS). Synonymized with *Eucerceris nevadensis* by Bohart and Grissell, 1975:31. – Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:179 (in catalog of North American Hymenoptera).

ssp. mojavensis Scullen

Eucerceris mojavensis Scullen, 1968b:44, ♂. Holotype: ♂, USA: California: 7 mi E Mojave (UCD). – R. Bohart and Grissell, 1975:31 (as new synonym of *Eucerceris nevadensis*); R. Bohart and Menke, 1976:592 (as synonym of *Eucerceris nevadensis*). – **As *Eucerceris nevadensis mojavensis***: G. Ferguson, 1981:174 (new status, discussion of synonymy).

25. *pacifica* Scullen

Eucerceris pacifica Scullen, 1948:176, ♂. Holotype: ♂, Mexico: Baja California: San Pedro (CAS). – Scullen, 1948:156 (in key to *Eucerceris*), 1968b:52 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

26. *pimarum* Cockerell and Rohwer

Eucerceris pimarum Cockerell and Rohwer in Rohwer, 1908e:326, ♀. Holotype or syntypes: ♀, USA: Arizona: Phoenix (USNM). – Scullen, 1939:32 (as synonym of *Eucerceris elegans*), 1965:135 (valid species); Krombein in Krombein and Burks, 1967:418 (synonymy with *Eucerceris elegans* recorded); Scullen and Wold, 1970:213 (distribution, summary of prey records); R. Bohart and Grissell, 1975:32 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Menke and Bohart, 1979:120 (correction of authorship); Krombein, 1979b:1740 (in catalog of North American Hymenoptera); G. Ferguson, 1981:176 (discussion of synonymy, geographic distribution), 1982:159 (correction of authorship); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

Eucerceris apicata Banks, 1915:404, ♂. Holotype or syntypes: ♂, USA: Arizona: Yuma (MCZ). Synonymized with *Eucerceris pimarum* by Bohart and Grissell, 1975:32, and R. Bohart in Bohart and Menke, 1976:592 (as new synonym). – Scullen, 1939:32 (as synonym of *elegans*), 1965:132 (valid species); Krombein in Krombein and Burks, 1967:418 (valid name for *Eucerceris elegans*); Scullen, 1968b:11 (in revision of *Eucerceris*); G. Ferguson, 1983b:234 (study of holotype).

As *Eucerceris pimarum* (♀ only): Scullen, 1939:33 (in revision of *Eucerceris*), corrected to *Eucerceris pimarum* by Scullen, 1965:133.

27. *provancheri* (Dalla Torre)

Eucerceris insignis Provancher, 1888:418, ♀, actually ♂ (Viereck, 1903b:731). Lectotype: ♂, USA: California: Los Angeles (USNM), designated by Gahan and Rohwer, 1917:398. – Ashmead, 1899d:295 (in checklist of North American Crabronidae); Viereck, 1903:731 (California: La Jolla); Scullen, 1939:43 (in revision of *Eucerceris*), 1948:156 and 158 (in key to *Eucerceris*), 1949a:178 (California: Humboldt County: Myers); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1968b:34 (in revision of *Eucerceris*); Krombein, 1979b:1739 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:668 (in checklist of Mexican Sphecidae).

Cerceris provancheri Dalla Torre, 1890:204 (as *Provancheri*, incorrect original capitalization). Substitute name for *Cerceris insignis* (Provancher) Dalla Torre, 1890, secondary junior homonym of *Cerceris insignis* Klug, 1845, . – Dalla Torre, 1897:470 (in catalog of world Hymenoptera). – **As *Eucerceris provancheri***: R. Bohart and Grissell, 1975:32 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Frommer, 1988:93 (California: Riverside County: Deep Canyon); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

28. *punctifrons* (Cameron)

Aphilanthops punctifrons Cameron, 1890a:106, ♀. Holotype or syntypes: ♀, Mexico: North Yucatán: Temax (BMNH). – Ashmead, 1899d:296 (in checklist of North American Crabronidae). – **As *Cerceris punctifrons***: Dalla Torre, 1897:470 (new combination, in catalog of world Hymenoptera). – **As *Eucerceris punctifrons***: Kohl, 1891:369, footnote (new combination); Scullen, 1939:22 (in revision of *Eucerceris*), 1948:157 (in key to *Eucerceris*), 1968b:55 (in revision of *Eucerceris*; as *punctifrons punctifrons*); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Amarante, 2002:63 (in catalog of Neotropical Crabronidae).

29. *rubripes* Cresson

Eucerceris rubripes Cresson, 1879:xxiii, ♂. Lectotype: ♂, USA: Colorado: no specific locality (ANSP), designated by Cresson, 1916:101. – Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera);

Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado), 1899d:295 (in checklist of North American Crabronidae); Bridwell, 1899:209 (Kansas: no specific locality); Viereck and Cockerell, 1904a:88 (New Mexico); Snow, 1906:135 (Arizona: Oak Creek 20 mi. southwest of Flagstaff); Viereck, 1906:233 (Arizona); H. Smith, 1908:372 (in revision of Nebraskan Sphecidae); Mickel, 1918b:455 (in catalog of Nebraskan Sphecidae); Scullen, 1939:25 (in revision of *Eucerceris*), 1948:158 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1968b:55 (in revision of *Eucerceris*); Scullen and Wold, 1970:213 (distribution, summary of prey records); Alcock, 1975e:536 (male mating strategies); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Krombein, 1979b:1740 (in catalog of North American Hymenoptera); Radović, 1985:66 (sting apparatus analyzed); Clarke, Dani, Jones, Morgan, and Schmidt, 2001:1438 ((Z)-3-hexenyl (R)-3-hydroxybutanoate, a male pheromone used for marking territories). – **As *Cerceris rubripes***: Dalla Torre, 1890:201 (new combination), 1897:473 (in catalog of world Hymenoptera).

Eucerceris unicornis Patton, 1879:359b, ♀. Syntypes: ♀, Kansas: no specific locality (ANSP?). Synonymized with *Eucerceris rubripes* by Scullen, 1939:25. – Cresson, 1887:281 (in catalog of North American Hymenoptera); Bridwell, 1899:209 (Kansas: no specific locality); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Bridwell, 1899:209 (listed from Kansas); Viereck and Cockerell, 1904a:87 (New Mexico); Snow, 1906:135 (Arizona: Oak Creek 20 mi. southwest of Flagstaff); Viereck, 1906:233 (Arizona). – **As *Cerceris unicornis***: Schletterer, 1887:505 (new combination, in checklist of world *Cerceris*); Dalla Torre, 1897:480 (in catalog of world Hymenoptera).

30. *ruficeps* Scullen

Eucerceris ruficeps Scullen, 1948:159, ♀ (in key to *Eucerceris*). Holotype (Scullen, 1949a:176, as ♂): ♀, USA: California: Antioch (CAS). – Scullen, 1949a:175 (description); Linsley and MacSwain, 1954:11 (nest and prey); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Krombein, 1958f:197 (in supplement to catalog of North American Hymenoptera: prey: *Dysticheus rotundicollis* Van Dyke and *Sitona californica* Fähræus, both curculionids); Tsuneki, 1965d:3 (prey record summary: Curculionidae); Scullen, 1968b:57 (in revision of *Eucerceris*); Scullen and Wold, 1970:213 (distribution, summary of prey records); R. Bohart and Grissell, 1975:32 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:1740 (in catalog of North American Hymenoptera); Powell, 1981:55 (USA: California: Antioch); Steiner, 1986:114 (references to publications on nesting habits); .

31. *sculleni* G. Ferguson

As *Eucerceris melanovittata*: Scullen, 1968b:39 ♀ (females only), corrected to *Eucerceris sculleni* by G. Ferguson, 1982:150.

Eucerceris sculleni G. Ferguson, 1982:150, ♀, ♂. Holotype: ♀, USA: Arizona: Cochise County: Willcox (CAS).

32. *similis* Cresson

Eucerceris similis Cresson, 1879:xxiv, ♀, ♂. Lectotype: ♀, USA: Nevada: no specific locality (ANSP), designated by Cresson, 1916:101. – Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Scullen, 1939:30 (in revision of *Eucerceris*), 1948:156 and 159 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1968b:59 (in revision of *Eucerceris*); R. Bohart and Grissell, 1975:33 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:1740 (in catalog of North American Hymenoptera). – **As *Cerceris similis***: Dalla Torre, 1890:202 (new combination), 1897:477 (in catalog of world Hymenoptera).

33. *sinuata* Scullen

Eucerceris sinuata Scullen, 1939:47, ♀. Holotype: ♀, USA: Texas: Devils River (USNM). – Scullen, 1948:158 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1957:155

(Texas: Bexar County), 1964b:205 (Texas, Mexico: Nuevo Leon; description of ♂), 1968b:60 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:1740 (in catalog of North American Hymenoptera); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

34. *sonorae* Scullen

Eucerceris sonorae Scullen, 1968b:60, ♀, ♂. Holotype: ♀, Mexico: Sonora: 32 mi SE Guaymas (USNM). – R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

35. *stangei* Scullen

Eucerceris stangei Scullen, 1968b:63, ♀, ♂. Holotype: ♀, Mexico: Oaxaca: Mitla (USNM). – R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

36. *superba* Cresson

Eucerceris superba Cresson, 1865:108, ♂ (as *superbus*, incorrect original termination). Lectotype: ♂, USA: Colorado: Rocky Mountains: no specific locality (ANSP), designated by Cresson, 1916:101. – Packard, 1866:58 (in key to *Eucerceris*); Patton, 1879d:356 (nw. Kansas, redescription); Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera, as *superbus*); Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado), 1899d:295 (in checklist of North American Crabronidae); Bridwell, 1899:209 (Kansas: no specific locality); H. Smith, 1908:372 (in revision of Nebraskan Sphecidae). – **As *Eucerceris superba***: Stevens, 1917:422 (North Dakota: Williston); Mickel, 1918b:456 (in catalog of Nebraskan Sphecidae); Carter, 1925:133 (Canada: Alberta: Lethbridge); Scullen, 1939:36 (in revision of *Eucerceris*); Strickland, 1947:130 (Canada: Alberta: Lethbridge, Medicine Hat); Scullen, 1948:156 and 158 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Tsuneki, 1965d:3 (prey record summary: Curculionidae); Scullen, 1968b:66 (in revision of *Eucerceris*; as *superba superba*); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:1740 (in catalog of North American Hymenoptera); G. Ferguson, 1981:179 (discussion of synonymy, geographic distribution); Evans and O'Neill, 1985:1037 (male territorial behavior); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument). – **As *Cerceris superba***: Schletterer, 1887:503 (new combination, in checklist of world *Cerceris*); Dalla Torre, 1897:478 (in catalog of world Hymenoptera).

Eucerceris fulviceps Cresson, 1879:xxiii, ♀. Lectotype: ♀, USA: Colorado (New Mexico in original description): no specific locality (ANSP), designated by Cresson, 1916:100. Synonymized with *Eucerceris superba* by Scullen, 1939:36. – Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Cockerell, 1899a:141 (New Mexico). – **As *Cerceris fulviceps***: Dalla Torre, 1897:461 (new combination, in catalog of world Hymenoptera).

Eucerceris bicolor Cresson, 1882a:xxxviii, ♀. Holotype: ♀, USA: Montana: no specific locality (ANSP). Synonymized with *Eucerceris superba* by G. Ferguson, 1981:179. – Cresson, 1882c:vii (in catalog of *Eucerceris*), 1887:281 (listed); Ashmead, 1899d:295 (in checklist of North American Crabronidae); H. Smith, 1908:372 (in revision of Nebraskan Sphecidae); Cresson, 1916:99 (holotype in ANSP); Stevens, 1917:422 (North Dakota: Minot); Stevens, 1917:422 (North Dakota); Mickel, 1918b:455 (in catalog of Nebraskan Sphecidae); Carter, 1925:133 (Canada: Alberta: Lethbridge); Cresson, 1916:99 (holotype in ANSP). – **As *Eucerceris superba* var. *bicolor***: Scullen, 1939:37 (new status, in revision of *Eucerceris*); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera). – **As *Eucerceris superba bicolor***: Strickland, 1947:130 (Canada: Alberta: Lethbridge, Medicine Hat); Scullen, 1968b:65 (in revision of *Eucerceris*); Scullen and Wold, 1970:213 (distribution, summary of prey records); Evans, 1996:69 (nest, prey); Krombein, 1979b:1740 (in catalog of North American Hymenoptera).

Cerceris dichroa Dalla Torre, 1890:199. Substitute name for *Cerceris bicolor* (Cresson, 1882) Dalla Torre, 1890 nec *Cerceris bicolor* F. Smith, 1856. – Dalla Torre, 1897:457 (in catalog of world Hymenoptera). – **As *Eucerceris superba dichroa***: R. Bohart and Menke, 1976:592 (new combination; in checklist of world Sphecidae).

Eucerceris fulviceps var. *rhodops* Viereck and Cockerell, 1904a:88, ♀. Holotype: ♀, USA: New Mexico: Pecos (ANSP). Synonymized with *Eucerceris superba* by Scullen, 1939:36. – Cresson, 1928:49 (holotype in ANSP).

37. *tricolor* Cockerell

Eucerceris vittatifrons var. *tricolor* Cockerell, 1897b:136, ♂. Lectotype: ♂, USA: New Mexico: Las Cruces (ANSP), designated by Scullen, 1939:54. – Ashmead, 1899d:295 (in checklist of North American Crabronidae); Cockerell, 1899a:141 (New Mexico). – **As *Eucerceris tricolor***: Viereck and Cockerell, 1904a:87 (New Mexico; new status); Scullen, 1939:53 (in revision of *Eucerceris*), 1948:158 (in key to *Eucerceris*), 180 (southern Arizona); Scullen in Muesebeck et al., 1951:1012 (in catalog of North American Hymenoptera); Scullen, 1968b:67 (in revision of *Eucerceris*); Alcock, 1975e:536 (male mating strategies); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:1740 (in catalog of North American Hymenoptera); Clarke, Dani, Jones, Morgan, and Schmidt, 2001:1438 ((Z)-3-hexenyl (R)-3-hydroxybutanoate, a male pheromone, used for marking territories); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

38. *velutina* Scullen

Eucerceris velutina Scullen, 1948:160, ♀, ♂. Holotype: ♂, Mexico: San Bernardino (Logan). – Scullen, 1948:155 and 157 (in key to *Eucerceris*), 1968b:69 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Amarante, 2002:63 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

39. *violaceipennis* Scullen

Eucerceris violaceipennis Scullen, 1939:21, ♀. Holotype: ♀, Panama: Cabima (USNM). – Scullen, 1948:157 (in key to *Eucerceris*), 180 (Texas: Chisos Mountains), 1968b:70 (in revision of *Eucerceris*); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Hanson and Menke, 1995:649 (first record from Costa Rica); Amarante, 2002:63 (in catalog of Neotropical Crabronidae).

40. *vittatifrons* Cresson

Eucerceris vittatifrons Cresson, 1879:xxiv, ♂. Lectotype: ♂, USA: Nevada: no specific locality (ANSP), designated by Cresson, 1916:101. – Cresson, 1882c:viii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Scullen, 1939:51 (in revision of *Eucerceris*), 1948:157 and 158 (in key to *Eucerceris*), 180 (Texas: Chisos Mountains); Scullen in Muesebeck et al., 1951:1013 (in catalog of North American Hymenoptera); Scullen, 1968b:71 (in revision of *Eucerceris*); R. Bohart and Grissell, 1975:33 (in revision of North American Philanthinae); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:1740 (in catalog of North American Hymenoptera); G. Scudder, 1994:76 (in checklist of rare and endangered invertebrates of British Columbia); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Ratzlaff, 2016:28 (Canada: British Columbia: from Scudder, 1994). – **As *Cerceris vittatifrons***: Dalla Torre, 1890:202 (new combination), 1897:481 (in catalog of world Hymenoptera).

41. *zonata* (Say)

Philanthus zonatus Say, 1823:79, ♂. Holotype: USA: Arkansas: no specific locality (destroyed). Neotype: ♂, USA: Illinois: no specific locality (ANSP), designated by Scullen, 1939:42. – Say, 1828:111 (...); Le Conte, 1859a:111 (original description copied), 167 (reference to original description); Cresson, 1862:237 (in catalog of North American Hymenoptera). – **As *Cerceris zonata***: Schletterer, 1887:506 (new combination, in checklist of world *Cerceris*); Dalla Torre, 1890:200 (homonym of *Cerceris zonata* Cresson, 1865), 1897:481 (in catalog of world Sphecidae). – **As *Eucerceris zonatus***: Cresson, 1865c:105 (new combination, in revision of North American Philanthinae); Packard, 1866:58 (in key to

Eucerceris, bibliographic reference, geographic distribution); Cresson, 1873:227 (Texas), 1882c:vii (in catalog of *Eucerceris*), 1887:281 (in catalog of North American Hymenoptera); C. Robertson, 1892:103 (visiting flowers of *Mentha canadensis* Linnaeus), 104 (visiting flowers of *Lycopus sinuatus* Ell.), 105 (visiting flowers of *Pycnanthemum lanceolatum* Ph.), 106 (visiting flowers of *Pycnanthemum muticum* Pers.), 107 (visiting flowers of *Pycnanthemum linifolium* Ph.); 1894:454 (visiting flowers of *Solidago missouriensis* Nutt.), 455 (visiting flowers of *Solidago canadensis* Linnaeus), 458 (visiting flowers of *Solidago lanceolata* Linnaeus), 460 (visiting flowers of *Aster paniculatus* Lam.), 1896:73 (visiting flowers of *Polygonum hydropiperoides* Michx.); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Bridwell, 1899:209 (Kansas: no specific locality); Cockerell, 1899a:141 (New Mexico); J. Smith, 1900:519 (in list of insects of New Jersey: "probably occurs in New Jersey"), 1910:678 (in new list of insects of New Jersey: "sure to occur in New Jersey"); Faull, 1913:384 (Canada: Toronto region); Robertson, 1928:13, 24, 55, 68, 70-72, 90, 92, 107, 115, 120, 122, 123, 153-155, 195, 198 (floral records); Peckham, 1934b:260 (Missouri: Allenton). – **As *Eucerceris zonata***: Viereck and Cockerell, 1904a:88 (New Mexico); Mickel, 1918b:456 (in catalog of Nebraskan Sphecidae); Washburn, 1919:219 (Minnesota: Gray Cloud Island); Britton, 1920:341 (in checklist of insects of Connecticut); Scullen, 1939:40 (in revision of *Eucerceris*), 1948:156 and 158 (in key to *Eucerceris*); Scullen in Muesebeck et al., 1951:1013 (in catalog of North American Hymenoptera); Scullen, 1968b:73 (in revision of *Eucerceris*); Evans, 1971:514 (nesting habits), 517 (description of larva); R. Bohart and Menke, 1976:592 (in checklist of world Sphecidae); Krombein, 1979b:1740 (in catalog of North American Hymenoptera, nesting sites, prey); Radović, 1985:66 (sting apparatus analyzed); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Buck, 2004:28 (in checklist of Crabronidae of Ontario, Canada).

Eucerceris laticeps Cresson, 1865c:107, ♀, ♂. Lectotype: ♀, USA: Massachusetts: no specific locality (ANSP), designated by Cresson, 1916:100. Synonymized with *Eucerceris zonata* by Scullen, 1939:41 and 42. – Packard, 1966:58 (in key to *Eucerceris*), 59 (bibliographic reference, geographic distribution); Patton, 1879d:357 (nw. Kansas, redescription); Cresson, 1882:vii (listed, as *Eucerceris zonatus* var. *laticeps*), 1887:281 (in catalog of North American Hymenoptera); Ashmead, 1899d:295 (in checklist of North American Crabronidae); Bridwell, 1899:209 (Kansas: no specific locality); J. Smith, 1900:519 (New Jersey: Gloucester), 1910:678 (in new list of insects of New Jersey: Gloucester); H. Smith, 1908:372 (in revision of Nebraskan Sphecidae, as *Eucerceris zonatus laticeps*); J.Ch. Bradley, 1928:1017 (in catalog of New York Sphecidae). – **As *Cerceris laticeps***: Schletterer, 1887:495 (new combination, listed); Dalla Torre, 1897:466 (in catalog of world Hymenoptera).

sp.

Kingsley, Bailowitz, and Smith, 1987:19 (Arizona: Organ Pipe Cactus National Monument: Quitobaquito Springs area).