

The Colorado Bee List

Colletidae

Diphaglossinae

Caupolicanini

***Caupolicana* (References: Michener 1966; Michener and Deyrup 2004; Vergara and Michener 2004)**

(*ocellata* group) [= Subgenus *Caupolicana*, in part]

ocellata Michener, 1966 – Bent County. This is new for Colorado based on two male specimens housed at CSUC.

Colletinae

***Colletes* (References: Stephen 1954; Timberlake 1943b, 1951)**

(*aestivalis* group)

andrewsi Cockerell, 1906 – Boulder and Larimer Counties.

(*americanus* group)

aberrans Cockerell, 1897 – Bent and Weld Counties.

albescens Cresson, 1868 – Alamosa and Costilla Counties plus Great Sand Dunes National Monument and Preserve.

aff. *annae* Cockerell, 1897 – Alamosa County. This is new for Colorado based on one male and one female specimen housed at CSUC collected from the Alamosa County portion of Great Sand Dunes National Monument on September 1-2, 1978 and determined by TG.

gypticolens Cockerell, 1897 – Alamosa, Huerfano, and Mesa Counties plus Great Sand Dunes National Monument and Preserve.

laticinctus Timberlake, 1951 – Boulder County.

mandibularis Smith, 1853 – Boulder, Otero, Prowers, and Weld Counties.

susannae Swenk, 1925 – El Paso and Larimer Counties.

(*ciliatus* group)

ciliatus Patton, 1879 – Yuma County.

(*compactus* group)

compactus Cresson, 1868 – See subspecies.

compactus hesperius Swenk, 1906 – Costilla, Douglas, Jefferson, Larimer, and San Miguel Counties.

(*consors* group)

consors Cresson, 1868 – See subspecies.

consors consors Cresson, 1868 – Boulder, Custer, Gilpin, Gunnison, Huerfano, Jefferson, and Larimer Counties.

nigrifrons Titus, 1900 – Boulder, Chaffee, Gilpin, Gunnison, Jefferson, Lake, Larimer, Mineral, Ouray, Park, Routt, and Teller Counties.

paniscus Viereck, 1903 [“1902”] – See subspecies.

paniscus paniscus Viereck, 1903 [“1902”] – Boulder, Clear Creek, El Paso, Elbert, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, La Plata, Lake, Larimer, Montezuma, Park, Rio Grande, and Teller Counties.

scopiventer Swenk, 1908 – Colorado.

wickhami Timberlake, 1943 – El Paso County.

(*daleae* group)

petalostemonis Swenk, 1906 – Bent, Boulder, El Paso, and Larimer Counties.

(*hyalinus* group)

hyalinus Provancher, 1888 – See subspecies.

- hyalinus hyalinus* Provancher, 1888 – Adams, Boulder, Eagle, Gilpin, Lake, Larimer, Mineral, Pitkin, and Weld Counties.
- lutzi* Timberlake, 1943 – See subspecies.
- lutzi lutzi* Timberlake, 1943 – Alamosa, Conejos, Costilla, Delta, Garfield, Jackson, Lake, Larimer, Mesa, Mineral, Moffat, Ouray, Pitkin, Pueblo, Teller, and Weld Counties plus Great Sand Dunes National Monument and Preserve.
- phaceliae* Cockerell, 1906 – Adams, Alamosa, Archuleta, Boulder, Delta, Denver, Gilpin, Grand, Gunnison, Jackson, Jefferson, Lake, Larimer, Logan, Mesa, Moffat, Montezuma, Montrose, Park, Pitkin, Routt, Teller, Weld, and Yuma Counties.
- (*intermixtus* group)
- intermixtus* Swenk, 1905 – Mesa County.
- (*latitarsis* group)
- latitarsis* Robertson, 1891 – Boulder, El Paso, Kiowa, Las Animas, and Yuma Counties.
- (*nudus* group)
- nudus* Robertson, 1898 – Boulder and Denver Counties.
- (*productus* group)
- gilensis* Cockerell, 1897 – Baca, Boulder, El Paso, Mesa, Otero, Park, Pueblo, and Weld Counties.
- (*robertsonii* group)
- metzi* Timberlake, 1951 – Boulder County. This species is known only from Colorado. Timberlake (1951: 192) records the male AMNH holotype from the city of Boulder collected by Metz. He also lists a male paratype from Boulder collected on August 14, 1935 by C.D. Michener.
- robertsonii* Dalla Torre, 1896 – Boulder County.
- timberlakei* Stephen, 1954 – Boulder County.
- (*simulans* group)
- eulophi* Robertson, 1891 – Boulder County.
- fulgidus* Swenk, 1904 – See subspecies.
- fulgidus fulgidus* Swenk, 1904 – Boulder, Garfield, Las Animas, Moffat, Ouray, Pitkin, Rio Blanco, and Routt Counties.
- kincaidii* Cockerell, 1898 – Archuleta, Boulder, Chaffee, Costilla, Denver, Elbert, Garfield, Gilpin, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Mesa, Mineral, Moffat, Ouray, Park, Pitkin, Routt, San Miguel, and Teller Counties plus Rocky Mountain National Park.
- rufocinctus* Cockerell, 1929 – Jefferson and Larimer Counties.
- simulans* Cresson, 1868 – See subspecies. The species is also known from Alamosa, Costilla, and Denver Counties.
- simulans nevadensis* Swenk, 1908 – Garfield and Mesa Counties. This is new for Colorado based on a female specimen housed at UCMC collected at Colorado National Monument [lv or lw] Gl[ade] P[ar]k Jct. on August 29, 1962 from flowers of *Chrysothamnus* by McCoy and Miller and determined by TG.
- simulans simulans* Cresson, 1868 – Boulder, Chaffee, Garfield, Jefferson, Larimer, Mesa, Mineral, Moffat, San Miguel, Weld, and Yuma Counties plus the San Luis Valley.
- slevini* Cockerell, 1925 – Mesa County.
- trigonatus* Cockerell, 1933 – Larimer County. This species is poorly known and only from Colorado. Cockerell (1933a: 42-43) records the female type from Pingree Park on August 15, 1932 by H. James. Stephen (1954: 275-276) notes that the species is known only from the type.
- aff. *wootoni* Cockerell, 1897 – Gunnison County. This is new for Colorado based on a female specimen housed at UCMC collected 7 miles southwest of Redstone, 7,200 ft. on August 1, 1982 from flowers of yellow *Melilotus* by U.N. Lanham and determined by TG.

(*willistoni* group)

brevicornis Robertson, 1897 – Boulder, El Paso, Fremont, and Larimer Counties.

willistoni Robertson, 1891 – Boulder, Delta, and Weld Counties.

Hylaeinae

***Hylaeus* (References: Ascher 2001; Ascher et al. 2006; Cockerell and Sumner 1931; Dathe 1994; Matteson et al. 2008; Metz 1911; Roig-Alsina 2006; Scott 1994, 1996; Snelling 1966a, 1966b, 1966c, 1968, 1970, 1975, 1983b; Torchio 1984)**

(*Cephalylaeus*)

basalis (Smith, 1853) – Boulder, Conejos, Dolores, Garfield, Gilpin, Gunnison, Jackson, Jefferson, La Plata, Lake, Larimer, Ouray, Park, Pitkin, Routt, and Teller Counties.

(*Hylaeus*)

annulatus (Linnaeus, 1758) [= senior synonym of *Prosopis elliptica* Kirby; see Dathe (1994)] – Boulder, Chaffee, Delta, Dolores, Garfield, Gilpin, Gunnison, Jackson, Jefferson, La Plata, Lake, Larimer, Mesa, Moffat, Ouray, Park, Pitkin, Rio Grande, Routt, and Teller Counties.

conspicuus (Metz, 1911) – Garfield, Gunnison, Larimer, and Montrose Counties. Although the Larimer County record is quite far east for this species, the male CSUC specimen collected from Ft. Collins on July 4, 1900 was confirmed by VLS and appears to be a valid record.

leptocephalus (Morawitz, 1871[“1870”]) [= senior synonym of *Hylaeus bisinuatus* Förster; see Westrich (1990: 662) and *Prosopis stevensi* Crawford; see Snelling (1975: 8)] – Adams, Boulder, Delta, Denver, El Paso, Garfield, Jefferson, Larimer, Phillips, Prowers, Pueblo, Weld, and Yuma Counties. This is an introduced species, having arrived in North America in the early 1900s (Snelling 1975: 8-9). Colorado specimens at UCMC and AMNH date back to specimens collected in Denver in 1915.

mesillae (Cockerell, 1896) – Alamosa, Boulder, Delta, Eagle, El Paso, Fremont, Garfield, Jefferson, Lake, Mesa, Rio Grande, Routt, Teller, and Yuma Counties. The following two subspecies both occur in Colorado (Hurd 1979: 1767; Snelling 1970: 14). Snelling (1970) refers to “intergrades” and “intermediate forms” of the subspecies with regards to Colorado specimens and VLS concurs. For this reason, county information is not provided here for the documented Colorado subspecies.

mesillae cressoni (Cockerell, 1907) – Colorado.

mesillae mesillae (Cockerell, 1896) – Colorado.

rudbeckiae (Cockerell and Casad, 1895) – Boulder, Delta, and Routt Counties.

verticalis (Cresson, 1869) – Boulder, Custer, Douglas, Jefferson, Larimer, Las Animas, Ouray, San Miguel, and Teller Counties.

(*Paraprosopis*)

(*megalotis* group)

megalotis (Swenk and Cockerell, 1910) – Alamosa and Moffat Counties.

(*wootoni* group)

coloradensis (Cockerell, 1896) – Boulder, Chaffee, Delta, Douglas, Elbert, Garfield, Gunnison, Jefferson, La Plata, Lake, Larimer, Montrose, Ouray, and Teller Counties.

personatellus (Cockerell, 1915) – Boulder, Grand, Gunnison, Larimer, Mesa, and Ouray Counties.

wootoni (Cockerell, 1896) – Alamosa, Boulder, Delta, Fremont, Jefferson, Larimer, Mesa, Montezuma, Ouray, Routt, and Teller Counties.

(unplaced to group)

seclusus Cockerell and Sumner, 1931 – Ouray County. This species is known only from Colorado. Cockerell and Sumner (1931: 12-13) list the male type from Ouray about 8,500 ft. on July 11-14, 1919 by F.E. Lutz. While Snelling (1966: 171) lists this species as a member of the subgenus *Paraprosopis*, it is not included in Snelling (1970).

(*Prosopis*)

affinis (Smith, 1853) – Adams, Bent, Boulder, Larimer, Weld, and Yuma Counties.

episcopalis (Cockerell, 1896) – See subspecies. This species also occurs in Douglas, Jefferson, Mesa, Pitkin, Routt, and Teller Counties.

episcopalis coquilletti (Cockerell, 1896) – Montrose County. This is new for Colorado based on two BBSL specimens: one collected 6 km north of Montrose and the other collected 7 km northeast of Montrose.

episcopalis episcopalis (Cockerell, 1896) – Archuleta, Boulder, Delta, Eagle, Fremont, Garfield, Gunnison, Hinsdale, La Plata, Larimer, Mineral, Montrose, and Park Counties.

modestus Say, 1837 – See subspecies.

modestus citrinifrons (Cockerell, 1896) – Archuleta, Boulder, Delta, Fremont, Gilpin, Jefferson, La Plata, Larimer, Moffat, Montrose, Pitkin, and Rio Grande Counties.

(*Spatulariella*)

punctatus (Brullé, 1832) – Boulder and Denver Counties. This is new for Colorado. This introduced Palearctic species was first documented in North America in 1981 in Los Angeles County, California (Snelling 1983b). It has subsequently been found further north in California (Ascher 2001), in the District of Columbia (Ascher et al. 2006), New York City (Matteson et al. 2008), and is widely established in Chile and Argentina (Matteson et al. 2008; Roig-Alsina 2006). It is now found in Colorado. The earliest known Colorado specimens (a series of males and females) were collected by C.Y. Scott from *Aegopodium podagraria* ‘*variegatum*’ in VLS’s back yard in Longmont (Boulder County) in 2008 and again in 2009 and 2010 (both males and females as late as October 3rd). Additionally, a short series of photographs by Diane Wilson, best depicted by <http://bugguide.net/node/view/337636>, shows a mating pair of this species in Denver (Denver County) on September 25, 2009 on broccoli flowers. It would appear this species has become established in Colorado’s Front Range in recent years and is either bivoltine or multivoltine.

Halictidae

Rophitinae

Rophitini

***Dufourea* (References: Bohart 1947, 1948, 1949)**

fimbriata (Cresson, 1878) – Boulder, Clear Creek, Conejos, Eagle, Grand, Gunnison, Lake, Larimer, Mesa, Ouray, Park, Rio Blanco, Rio Grande, Summit, and Teller Counties.

marginata (Cresson, 1878) – Boulder, Chaffee, Cheyenne, Conejos, Custer, Denver, El Paso, Fremont, Larimer, Las Animas, Lincoln, Logan, Morgan, Pueblo, Washington, Weld, and Yuma Counties.

maura (Cresson, 1878) – Boulder, Clear Creek, Conejos, Costilla, Custer, Eagle, El Paso, Gilpin, Gunnison, Jefferson, Larimer, Mineral, Montrose, Park, Rio Blanco, Routt, Summit, and Teller Counties.

oryx (Viereck, 1903[“1902”]) – Costilla, Fremont, Las Animas, Pitkin, and Saguache Counties.

Nomiinae

***Dieunomia* (References: Blair 1935; Cross 1958)**

(*Dieunomia*)

apacha (Cresson, 1868) – Boulder and Weld Counties.

heteropoda (Say, 1824) – See subspecies.

heteropoda kirbii (Smith, 1865) – Alamosa, Baca, Bent, Crowley, El Paso, Kiowa, Larimer, Mesa, Morgan, Otero, Prowers, Saguache, Weld, and Yuma Counties plus Great Sand Dunes National Monument and Preserve.

mesillae Cockerell, 1899 – Baca, Bent, Boulder, Kiowa, Las Animas, Otero, and Prowers Counties.

xerophila Cockerell, 1899 – Crowley, Kiowa, Logan, Mesa, and Weld Counties.

(*Epinomia*)

nevadensis (Cresson, 1874) – See subspecies.

nevadensis bakeri (Cockerell, 1898) – Alamosa, Bent, Boulder, Clear Creek, Conejos, Crowley, Denver, El Paso, Fremont, Huerfano, Jefferson, Kit Carson, Larimer, Lincoln, Morgan, Otero, Prowers, Weld, and Yuma Counties.

triangulifera (Vachal, 1897) – Alamosa, Baca, Bent, Crowley, El Paso, Lincoln, Prowers, Saguache, and Weld Counties.

***Nomia* (References: Ribble 1965)**

(*Acunomia*)

foxii Dalla Torre, 1896 – Archuleta and Montezuma Counties.

melanderi Cockerell, 1906 – Delta, Eagle, Garfield, Mesa, Montezuma, Montrose, and Rio Blanco Counties.

nortoni Cresson, 1868 – Clear Creek, Custer, and Larimer Counties.

nortoni nortoni Cresson, 1868 – This is the expected subspecies for Colorado.

universitatis Cockerell, 1908 – Baca, Bent, Boulder, Denver, El Paso, Huerfano, Larimer, Las Animas, and Weld Counties.

Halictinae

Augochlorini

***Augochlorella* (References: Coelho 2004; Ordway 1966; Sandhouse 1937)**

(*aurata* group)

aurata (Smith, 1853) [= senior synonym of *Augochlora striata* Provancher; see Coelho (2004)] – Adams, Arapahoe, Archuleta, Baca, Bent, Boulder, Crowley, Denver, Douglas, El Paso, Elbert, Gunnison, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Prowers, Pueblo, Summit, and Weld Counties.

***Augochloropsis* (References: Mitchell 1960; Moure and Hurd 1987; Sandhouse 1937)**

(*Paraugochloropsis*)

metallica (Fabricius, 1793) – Baca, Bent, Boulder, El Paso, Huerfano, Jefferson, Larimer, Mesa, Otero, Phillips, Weld, and Yuma Counties.

sumptuosa (Smith, 1853) – Bent, Boulder, Cheyenne, El Paso, Kiowa, Larimer, Morgan, Otero, Sedgwick, Weld, and Yuma Counties.

Halictini

Caenohalictina

***Agapostemon* (References: Janjic and Packer 2003; Roberts 1972)**

(*Agapostemon*)

(*splendens* group)

angelicus Cockerell, 1924 – Alamosa, Arapahoe, Archuleta, Baca, Bent, Boulder, Chaffee, Costilla, Crowley, Custer, Delta, Denver, Douglas, Eagle, El Paso, Elbert, Fremont, Gilpin, Grand, Gunnison, Huerfano, Kiowa, Kit Carson, La Plata, Larimer, Las Animas, Logan, Mesa, Mineral, Moffat, Montezuma, Otero, Ouray, Park, Prowers, Pueblo, Routt, Saguache, Sedgwick, Teller, Weld, and Yuma Counties.

femoratus Crawford, 1901 – Boulder, Conejos, Delta, Douglas, Eagle, El Paso, Elbert, Garfield, Larimer, Mesa, Moffat, Montrose, Rio Blanco, and Saguache Counties.

splendens (Lepeletier, 1841) – Alamosa, Boulder, El Paso, Larimer, Saguache, Weld, and Yuma Counties.

texanus Cresson, 1872 – Boulder, Chaffee, Conejos, El Paso, Elbert, Garfield, Gilpin, Gunnison, Jefferson, Larimer, Montezuma, Rio Blanco, Routt, Teller, and Weld Counties.

(*sericeus* group)

melliventris Cresson, 1874 – Bent, Boulder, Crowley, Delta, Mesa, and Otero Counties.

obliquus (Provancher, 1888) [= senior synonym of *Agapostemon cockerelli* Crawford; see Janjic and Packer (2003)] – Boulder, Elbert, Garfield, Grand, Huerfano, Kit Carson, Larimer, Mesa, Montrose, Otero, and Weld Counties.
sericeus (Forster, 1771) – Denver County. This is based on a single male specimen housed at UCMC identified by R. Roberts, but not mapped or noted in Roberts (1972).

(*tyleri* group)

coloradinus (Vachal, 1903) – Boulder, Crowley, Denver, El Paso, Elbert, Huerfano, Larimer, Las Animas, Logan, Mesa, Morgan, Saguache, Weld, Teller, and Yuma Counties.

(*virescens* group)

virescens (Fabricius, 1775) – Archuleta, Baca, Bent, Boulder, Crowley, Denver, Douglas, Eagle, El Paso, Elbert, Gunnison, Jackson, Jefferson, Larimer, Las Animas, Moffat, Montrose, Montezuma, Morgan, Otero, Prowers, Pueblo, Rio Blanco, Weld, and Yuma Counties.

Halictina

***Sphecodes* (References: Moure and Hurd 1987)** These are provisionally assigned to species groups corresponding to traditional subgeneric names as indicated, based on an infrageneric classification by M.S. Arduser (pers. comm.).

(*confertus* group) [= Subgenus *Drepanium*]

confertus Say, 1837 – Colorado.

(*dichrous* group: *dichrous* Subgroup) [= Subgenus *Austrosphecodes*, in part]

arvensiformis Cockerell, 1904 – Boulder and Montrose Counties plus the South Fork of the Rio Grande River.

dichrous Smith, 1853 – Boulder County.

(*dichrous* group: *prosporus* Subgroup) [= Subgenus *Austrosphecodes*, in part]

millsi Cockerell, 1919 – Larimer County. This species is known only from Colorado.

Cockerell (1919: 288) records the male type from the Longs Peak Inn on July 21 from an umbelliferous flower by Cockerell and notes that it is named after Enos Mills, the famous Rocky Mountain naturalist who owned the Longs Peak Inn.

pulsatillae Cockerell, 1906 – Boulder, Larimer, and Weld Counties.

sophiae Cockerell, 1898 – Teller County. Cockerell (1907b: 241) records this species from the city of Boulder. The only specimen at UCMC is from Florissant in Teller County. No Boulder or Boulder County specimens have been located as of this writing.

sulcatulus Cockerell, 1906 – Grand and Teller Counties.

(*mandibularis* group) [= Subgenus *Sphecodium*]

arroyanus Cockerell, 1904 – Colorado.

eustictus Cockerell, 1906 – Boulder, Larimer, Park, and Teller Counties.

fragariae Cockerell, 1903 – Teller County.

lautipennis Cockerell, 1908 – Colorado. This poorly known species belongs to the *davisii* subgroup along with *S. davisii* Robertson and *S. johnsonii* Lovell from eastern North America, and multiple western species. The remaining Colorado members of the *mandibularis* group belong to the *mandibularis* subgroup.

mandibularis Cresson, 1872 – Boulder, El Paso, and Saguache Counties.

nitidissimus Cockerell, 1910 – Routt County. This species is known only from Colorado.

Cockerell (1910: 367) records the female type from Steamboat Springs on May 27.

pycnanthemis Robertson, 1897 – Colorado.

rohweri Cockerell, 1907 – Teller County.

(*ranunculi* group) [= Subgenus *Proteraner*]

pecosensis Cockerell, 1904 – See subspecies. This species also occurs in Boulder, Custer, and Fremont Counties.

pecosensis pecosensis Cockerell, 1904 – El Paso and Teller Counties.

rhois (Cockerell, 1904) – El Paso County.

***Halictus* (References: Pesenko 2004; Sandhouse 1941)**

(*Nealictus*)

farinosus Smith, 1853 – Conejos, Delta, Dolores, Eagle, Fremont, Huerfano, Mesa, Montezuma, and Montrose Counties.

parallelus Say, 1837 – Baca, Bent, Boulder, El Paso, Weld, and Yuma Counties.

(*Odontalictus*)

ligatus Say, 1837 – Adams, Arapahoe, Baca, Bent, Boulder, Chaffee, Crowley, Custer, Delta, Denver, Dolores, Douglas, El Paso, Elbert, Fremont, Garfield, Gilpin, Gunnison, Huerfano, Jackson, Jefferson, Kiowa, Larimer, Las Animas, Logan, Mesa, Montezuma, Montrose, Morgan, Otero, Ouray, Pitkin, Prowers, Pueblo, Rio Blanco, Routt, Sedgwick, Teller, Weld, and Yuma Counties.

(*Pachycephala*) See Michener (2007: 369) discussion under *Halictus* (*Seladonia*).

confusus Smith, 1853 – See subspecies. This species occurs in Adams, Alamosa, Arapahoe, Bent, Boulder, Conejos, Custer, Delta, Douglas, El Paso, Elbert, Fremont, Garfield, Grand, Gunnison, Huerfano, Jackson, Jefferson, Kit Carson, La Plata, Larimer, Logan, Mesa, Moffat, Montezuma, Montrose, Morgan, Otero, Ouray, Pitkin, Prowers, Pueblo, Rio Blanco, Rio Grande, Routt, Saguache, San Miguel, Teller, Weld, and Yuma Counties.

confusus arapahonum Cockerell, 1906 – eastern plains of Colorado.

confusus confusus Smith, 1853 – mountainous areas of Colorado.

tripartitus Cockerell, 1895 – Adams, Archuleta, Baca, Bent, Boulder, Custer, Delta, Denver, Dolores, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Grand, Gunnison, Huerfano, Jefferson, Kiowa, La Plata, Larimer, Las Animas, Logan, Mesa, Montezuma, Montrose, Otero, Prowers, Pueblo, Rio Blanco, Routt, San Miguel, Weld, and Yuma Counties.

virgatellus Cockerell, 1901 – Boulder, Conejos, Delta, Eagle, Garfield, Grand, Gunnison, Jackson, Lake, Larimer, Mesa, Montrose, Pitkin, Rio Blanco, and San Juan Counties plus the Camp Creek Ranger Station.

(*Protohalictus*)

rubicundus (Christ, 1791) – Archuleta, Bent, Boulder, Chaffee, Conejos, Costilla, Custer, Delta, Denver, Douglas, Eagle, El Paso, Elbert, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Pitkin, Prowers, Rio Blanco, Rio Grande, Routt, San Juan, San Miguel, Summit, Teller, Weld, and Yuma Counties plus the south fork of the Rio Grande River.

***Lasioglossum* (References: Gibbs 2009a, 2009b, 2010; McGinley 1986, 2003; Sandhouse 1923, 1924)**

(*Dialictus*) Certain acarinate species that have traditionally been included in the genus (or subgenus) *Evylaeus* are reported here as non-metallic *Lasioglossum* (*Dialictus*) sensu Michener (2000, 2007) based on the study of their morphology by JSA and/or J. Gibbs (unpublished), and reported online by Ascher and Pickering (2011).

absimile (Sandhouse, 1924) – Logan County. This species is known only from Colorado.

Sandhouse (1924: 21-22) lists the female USNM holotype No. 26416 as being collected from Sterling on July 10, 1920 at dandelion (*Taraxacum*) by Sandhouse.

albipenne (Robertson, 1890) [= senior synonym of *Halictus* (*Chloralictus*) *lactineus*

Sandhouse; see Gibbs (2010)] – Boulder, Elbert, and Sedgwick Counties.

anomalum (Robertson, 1892) – Boulder, Custer, and Larimer Counties.

caducum (Sandhouse, 1924) – Las Animas and Montrose Counties.

callidum (Sandhouse, 1924) – Boulder County.

clematisellum (Cockerell, 1904) – Las Animas and Mesa Counties.

coactum (Cresson, 1897) – Baca and Las Animas Counties.

cressonii (Robertson, 1890) – Boulder, Jefferson, Larimer, and Routt Counties.

diatretum (Vachal, 1904) – Colorado.

ephiatum Gibbs, 2010 – Larimer County.

glabriventre (Crawford, 1907) – Rio Blanco and Rio Grande Counties.

aff. griswoldi Gibbs, 2009 – Boulder County. (J. Gibbs, pers. comm.)
hemimelas (Cockerell, 1901) – Boulder County plus the south fork of the Rio Grande River.
hudsoniellum (Cockerell, 1919) – Boulder, El Paso, Larimer, and Las Animas Counties.
hyalinum (Crawford, 1907) – Montrose and Rio Blanco Counties.
illinoense (Robertson, 1892) – Colorado.
imitatum (Smith, 1853) – Larimer County.
incompletum (Crawford, 1907) – Routt County. This is new for Colorado based on two female AMNH specimens collected 22 miles west of Steamboat Springs on July 15, 1963 by N. and B. Marston and determined by J. Gibbs. It represents a range extension beyond that which was published in Gibbs (2010: 161-166).
inconditum (Cockerell, 1916) – Boulder, Gunnison, Hinsdale, Montrose, Rio Grande, and San Miguel Counties plus Camp Creek Ranger Station.
knereri Gibbs, 2010 – Jackson and Larimer Counties.
laevissimum (Smith, 1853) [= senior synonym of *Halictus (Chloralictus) jameseae* Cockerell, *H. (C.) phaceliarum* Cockerell, and *H. (C.) praepes* Sandhouse; see Gibbs (2010)] – Archuleta, Boulder, Larimer, Ouray, and Park Counties.
lazulis (Ellis, 1913) – Larimer and Teller Counties.
lilliputense Gibbs, 2010 – Boulder, Elbert, Garfield, and Routt Counties plus the Camp Creek Ranger Station. This represents a range extension beyond what is published in Gibbs (2010) and is based on AMNH specimens identified by Gibbs subsequent to that work.
lineatulum (Crawford, 1906) [= senior synonym of *Halictus (Chloralictus) latus* Sandhouse; see Gibbs (2010)] – Denver, El Paso, and Elbert Counties.
lionotum (Sandhouse, 1923) – Colorado. This species is known only from Colorado. Sandhouse (1923: 194) records the male type from “Colorado, (Baker No. 1596).”
mactum (Sandhouse, 1924) – Larimer? and Teller Counties. This species is known only from Colorado. Sandhouse (1924: 37-38) records the male USNM type No. 26400 from Longs Peak Trail on July 18 at flowers of *Senecio* by W.P. Cockerell. This is probably from Larimer County, although this trail extends into Boulder County.
molle (Sandhouse, 1924) – Teller County. This species is known only from Colorado. Sandhouse (1924: 39-40) records the male USNM type No. 26443 as being collected from Florissant on July 16 from flowers of *Dasiphora fruticosa* by Cockerell.
obnubilum (Sandhouse, 1924) – Boulder, Elbert, Garfield, and Larimer Counties. This species is known only from Colorado. Sandhouse (1924: 28-29) records the male USNM type No. 26427 from the city of Boulder on July 18, 1908 by S.A. Rohwer.
occidentale (Crawford, 1902) – Boulder, El Paso, Elbert, Fremont, and Larimer Counties.
oceanicum (Cockerell, 1916) – El Paso County. Three specimens from El Paso County identified as *Dialictus nymphaeearum* (Robertson) by Eickwort are housed at UCMC. The name *D. nymphaeearum*, as used by Eickwort, refers to *L. oceanicum*; see Gibbs (2010: 223). This represents a range extension beyond what was published in Gibbs (2010).
ovaliceps (Cockerell, 1898) – Boulder, Elbert, Larimer, and Ouray Counties.
pacatum (Sandhouse, 1924) – Boulder, Gilpin, and Larimer Counties.
packeri Gibbs, 2010 – Baca, Fremont, Las Animas, Logan, and Sedgwick Counties.
pallidellum (Ellis, 1914) – Pueblo and Sedgwick Counties.
paululum (Sandhouse, 1924) – Logan County. This species is known only from Colorado. Sandhouse (1924: 23-24) records the male USNM type No. 26419 from Crook on August 29, 1920 by Sandhouse.
pavininum (Ellis, 1913) [= senior synonym of *Halictus (Chloralictus) abietum* Michener, *H. (C.) evestigatus* Sandhouse, and *H. (C.) pikei* Sandhouse; see Gibbs (2010)] – Boulder, Gilpin, Larimer, and Park Counties plus Pikes Peak, Printing Office.
pectorale (Smith, 1853) – Boulder, Elbert, and Sedgwick Counties.
pectoraloides (Cockerell, 1895) – Baca, Boulder, El Paso, Fremont, Otero, and Ouray Counties.

pensitum (Sandhouse, 1924) – Boulder County. This species is known only from Colorado. Sandhouse (1924: 38) described this species based on four males including USNM type No. 26441 from the city of Boulder, July 20 to August 1, 1908 by S.A. Rohwer.

perdifficile (Cockerell, 1895) – Delta, Denver, Grand, and Rio Blanco Counties.

perpunctatum (Ellis, 1913) – Boulder, Denver, Elbert, and Larimer Counties.

pictum (Crawford, 1902) – Alamosa, El Paso, and Weld Counties.

prasinogaster Gibbs, 2010 – Boulder, Garfield, Jackson, Ouray, and Teller Counties plus the Camp Creek Ranger Station.

pruinotum (Robertson, 1892) – Boulder, El Paso, Elbert, La Plata, Larimer, Las Animas, Moffat, Rio Blanco, and Sedgwick Counties.

pubescens (Sandhouse, 1924) – Larimer? County. This species is known only from Colorado. Sandhouse (1924: 33) records the male USNM type No. 26434 from Longs Peak in August at flowers of gentian by Cockerell. Although Longs Peak is actually in Boulder County, the majority of Longs Peak Trail is in Larimer County.

pulveris (Cockerell, 1930) – Boulder, El Paso, Grand, Montezuma, and Rio Blanco Counties.

ruidosense (Cockerell, 1897) – Boulder, El Paso, Elbert, Grand, Gunnison, Jackson, Larimer, Park, and Teller Counties.

sagax (Sandhouse, 1924) [= senior synonym of *Halictus (Chloralictus) accentus* Sandhouse; see Gibbs (2010)] – Boulder County.

sandhouseae Michener, 1951 – Teller County.

scrophulariae (Cockerell, 1906) – Alamosa and Teller Counties.

sedi (Sandhouse, 1924) – Boulder, Conejos, Grand, Gunnison, Hinsdale, Jackson, Larimer, Mineral, Park, and Rio Blanco Counties.

semibrunneum (Cockerell, 1895) [= senior synonym of *Halictus oleosus* Cockerell; see Gibbs (2010)] – El Paso, Fremont, and Las Animas Counties.

semicaeruleum (Cockerell, 1895) [= senior synonym of *Halictus (Chloralictus) actuarius* Sandhouse and *Halictus pruinosiformis* Crawford; see Gibbs (2010)] – Alamosa, Arapahoe, Boulder, Chaffee, El Paso, Elbert, Huerfano, Jefferson, Larimer, Las Animas, Montezuma, Otero, Prowers, Pueblo, Sedgwick, Teller, Weld, and Yuma Counties.

sitocleptum Gibbs, 2010 – Garfield County. This is new for Colorado based on a female parasitic *L. (Dialictus)* in the AMNH collected from Glenwood Springs on August 5, 1920 and initially determined by P.H. Timberlake as *Paralictus simplex* Robertson, a species known with certainty only from the eastern U.S. (Mitchell 1960: 449-450; Moure and Hurd 1987: 143; J. Gibbs pers. comm.). This specimen was reidentified by J. Gibbs as *L. sitocleptum*, a species he described in 2010 from Alberta and Saskatchewan. This is the first record of this species for the United States.

succinipenne (Ellis, 1913) – Alamosa, Boulder, El Paso, Elbert, Grand, Jefferson, Larimer, and Teller Counties.

synthyridis (Crawford, 1906) – Boulder, El Paso, Elbert, and Teller Counties. Future studies are needed to clarify the taxonomy and geographic ranges of this and related species; some Colorado specimens may prove to be the similar eastern species *Lasioglossum foxii* (Robertson).

aff. *tegulariforme* (Crawford, 1907) – Boulder, El Paso, Larimer, and Weld Counties. Gibbs (2010) notes that many specimens from the western U.S. identified as *tegulariforme* likely pertain to *Lasioglossum imbrex* Gibbs.

tenax (Sandhouse, 1924) [= senior synonym of *Halictus (Chloralictus) meritus* Sandhouse; see Gibbs (2010)] – Boulder, Larimer, Gunnison, and Teller Counties.

tenuis (Ellis, 1913) – Boulder County. This species is known only from Colorado. Ellis (1913: 208) records the female type from “Sugar Loaf Mountain, Colorado, altitude 8,500 ft. one (= type) 5 mm. long, May 18, 1907 (S.A. Rohwer).”

vaporellum (Cockerell, 1910) – Routt County. This species is known only from Colorado. Cockerell (1910: 366) records two females from Steamboat Springs on May 27.

versans (Lovell, 1905) – Custer and Jefferson Counties.

- viridatum* (Cockerell, 1919) – Larimer County.
- zephyrum* (Smith, 1853) [= senior synonym of *Halictus (Chloralictus) academicus* Sandhouse; see Gibbs (2010)] – Boulder, Denver, El Paso, and Larimer Counties.
- zophops* (Ellis, 1914) – Boulder, Larimer, and Teller Counties.
- (*Evyllaesus*) See note under *Lasioglossum (Dialictus)*; also see taxonomic notes in Ebmer (1995).
- cinctipes* (Provancher, 1888) – Archuleta, Boulder, Denver, El Paso, and Ouray Counties.
- cooleyi* (Crawford, 1906) – Alamosa, Archuleta, Boulder, El Paso, Elbert, Fremont, Garfield, Gunnison, La Plata, Larimer, Montezuma, Ouray, Pitkin, Rio Blanco, Routt, and Teller Counties.
- granosum* (Vachal, 1904) – Colorado. This species is known only from Colorado. Vachal (1904: 477-478) records the type locality as Colorado and the collector as Morrison.
- nigricalle* (Vachal, 1904) – Boulder County. This is based on a single UCMC specimen determined by T.D.A. Cockerell. Moure and Hurd (1987: 77) list the distribution of this very poorly known species as “Colorado and ?Nevada” and note, “The holotype is labeled: Nevada, Morrison, January, 1880, even though Vachal records it from Colorado.”
- nigrum* (Viereck, 1903 [“1902”]) – Colorado. The true status of this species is problematic; see Ebmer (1995). [Putative AMNH *L. nigrum* are from Boulder, Lake, La Plata, Montezuma, Ouray, and Rio Grande Counties plus Camp Creek Ranger Station.]
- peralpinum* (Cockerell, 1919) – Gunnison and Larimer? Counties. This species is known only from Colorado. Cockerell (1919: 289) records the female type from Longs Peak trail, above timberline on July 20, 1919 by Wilmatte P. Cockerell. Although Longs Peak Trail extends into Boulder County, most of the trail occurs in Larimer County, including the area at timberline.
- peraltum* (Cockerell, 1901) – Colorado. The true status of this species is problematic; see Ebmer (1995). [Putative AMNH *L. peraltum* are from Lake, Ouray, and Pitkin Counties plus Lawn Lake.]
- regis* (Cockerell, 1916) – Larimer County. This species is known only from Colorado. Cockerell (1916: 102) records the female type from Kingston, just above timber-line, in July 1915 at flowers of *Frasera* by L.A. Kenoyer.
- supranitens* (Cockerell, 1919) – Larimer? County. This species is known only from Colorado. Cockerell (1919: 289) records the female type from Longs Peak trail, above timberline, on July 20, 1919 by Cockerell. Although Longs Peak Trail extends into Boulder County, most of the trail occurs in Larimer County, including the area at timberline.
- testaceum* (Robertson, 1897) – Alamosa, Ouray, and Teller Counties.
- (*Lasioglossum*)
- athabascense* (Sandhouse, 1933) – Delta, Garfield, and Routt Counties.
- colatum* (Vachal, 1904) – Alamosa, Archuleta, Boulder, Jefferson Moffat, Ouray, Routt, Teller, and Yuma Counties.
- desertum* (Smith, 1879) – Boulder, Douglas, El Paso, Elbert, and Fremont Counties.
- egregium* (Vachal, 1904) – Archuleta, Boulder, Chaffee, Clear Creek, Costilla, Delta, Denver, Douglas, Eagle, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Mesa, Mineral, Moffat, Montezuma, Montrose, Rio Blanco, Rio Grande, Routt, Saguache, and Teller Counties.
- heterorhinum* (Cockerell, 1930) – Boulder, El Paso, Fremont, La Plata, Las Animas, Mesa, Moffat, Montezuma, and Montrose Counties.
- manitouellum* (Cockerell, 1908) – Boulder, El Paso, Fremont, Larimer, and Teller Counties.
- paraforbesii* McGinley, 1986 – Boulder, Custer, Delta, Denver, El Paso, Elbert, Garfield, Grand, La Plata, Larimer, Lincoln, Mesa, Prowers, Pueblo, and Yuma Counties.
- rupticristum* McGinley, 1986 – Custer County.
- sisymbrii* (Cockerell, 1895) – Adams, Alamosa, Boulder, Chaffee, Costilla, Delta, Denver, Douglas, Eagle, El Paso, Fremont, Garfield, Grand, Gunnison, Hinsdale, Huerfano,

Jefferson, Larimer, Las Animas, Mesa, Moffat, Montezuma, Montrose, Ouray, Park, Pueblo, Rio Blanco, Routt, Saguache, Teller, and Weld Counties.

titusi (Crawford, 1902) – Delta and Routt Counties.

trizonatum (Cresson, 1874) – Alamosa, Boulder, Chaffee, Clear Creek, Costilla, Douglas, El Paso, Elbert, Garfield, Grand, Gunnison, Hinsdale, Jackson, Jefferson, La Plata, Larimer, Las Animas, Mesa, Mineral, Moffat, Montezuma, Montrose, Park, Rio Grande, Summit, and Teller Counties.

(*Sphecodogastra*)

aberrans (Crawford, 1903) – Archuleta, Boulder, Clear Creek, Denver, El Paso, Elbert, Gunnison, Huerfano, Jackson, Jefferson, Larimer, Montrose, Park, Routt, and Teller Counties.

lutorium (Cresson, 1872) – Adams, Boulder, Clear Creek, Custer, Denver, El Paso, Gilpin, Gunnison, Huerfano, Jefferson, Larimer, Las Animas, Moffat, Montrose, Otero, Park, Sedgwick, Teller, and Weld Counties.

noctivaga Linsley and MacSwain, 1962 – Baca, Bent, and Weld Counties.

texanum (Cresson, 1872) – Boulder, Denver, El Paso, Huerfano, Kiowa, Larimer, Morgan, Park, and Weld Counties.

Andrenidae

Andreninae

Andrenini

***Andrena* (References: Bouseman and LaBerge 1979; Cockerell 1931; Donovan 1977; Gusenleitner and Schwarz 2002; Gusenleitner et al. 2005; LaBerge 1967, 1969, 1971a, 1971b, 1973, 1977, 1978, 1980, 1986, 1987, 1989; LaBerge and Bouseman 1970; LaBerge and Ribble 1972, 1975; LaBerge and Thorp 2005; Lanham 1941, 1949, 1982, 1987a, 1987b, 1993a, 1993b; Larkin et al. 2006; Michener 1937a; Ribble 1967, 1968a, 1968b, 1973, 1974; Thorp 1969; Thorp and LaBerge 2005; Viereck and Cockerell 1914)**

(*Andrena*)

birtwelli Cockerell, 1901 – Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Douglas, Eagle, El Paso, Gilpin, Grand, Gunnison, Hinsdale, Lake, Larimer, Mesa, Mineral, Park, Routt, San Miguel, and Teller Counties.

buckelli Viereck, 1924 – Boulder, Chaffee, Clear Creek, Costilla, Custer, Fremont, Grand, Gunnison, Hinsdale, Jackson, Jefferson, Larimer, Mesa, Routt, and Saguache Counties.

ceanothifloris Linsley, 1938 – See subspecies.

ceanothifloris cretata LaBerge, 1980 – Boulder and Moffat Counties.

clarkella (Kirby, 1802) – Boulder, Clear Creek, Grand, Larimer, Routt, and Summit Counties.

durangoensis Viereck and Cockerell, 1914 – La Plata and Montezuma Counties. LaBerge (1980: 495) cites two Colorado localities: Durango (holotype male, May 19, 1899 by Oslar) and Los Pinos (1 female, May 19, 1899 by C.F. Baker; 1 female and 1 male, May 22, 1899 by C.F. Baker). On the map in LaBerge (1980: 442, fig. 9) there is a dot at what appears to be the Los Pinos train stop on the Cumbres and Toltec Railroad in Conejos County. VLS thinks this is the wrong Los Pinos. See section on C.F. Baker for further information. JSA also notes that the male *A. durangoensis* sensu Mitchell (1960: 229-230, listed in the subgenus *Conandrena*) is a misidentification of *Andrena thaspiae* Graenicher. The true *A. durangoensis* is recorded reliably from Colorado and New Mexico only (LaBerge 1980).

frigida Smith, 1853 – Boulder, Conejos, Costilla, Douglas, El Paso, Elbert, Fremont, Gilpin, Grand, Jackson, Jefferson, Larimer, Routt, Summit, and Teller Counties.

laminibucca Viereck and Cockerell, 1914 – Boulder, Clear Creek, El Paso, Fremont, Larimer, Rio Blanco, Teller, and Weld Counties.

- lanhami* LaBerge, 1980 – Boulder, Chaffee, Conejos, Costilla, Elbert, Gilpin, Grand, Jackson, Larimer, Saguache, and Teller Counties.
- macoupinensis* Robertson, 1900 – Boulder, Delta, Larimer, Prowers, Pueblo, and Sedgwick Counties.
- mandibularis* Robertson, 1892 – Boulder, Denver, El Paso, Larimer, Pueblo, and Routt Counties plus Pikes Peak.
- milwaukeeensis* Graenicher, 1903 – Archuleta, Boulder, Chaffee, Clear Creek, Eagle, El Paso, Garfield, Gunnison, Hinsdale, Jefferson, Larimer, Mesa, Mineral, Montezuma, Montrose, Pueblo, Routt, Saguache, and San Miguel Counties plus the South Fork of the Rio Grande River.
- perarmata* Cockerell, 1898 – Boulder, Conejos, Costilla, Delta, Denver, Douglas, Gilpin, Grand, Jackson, Jefferson, Larimer, Mesa, and Routt Counties.
- rufosignata* Cockerell, 1902 – Clear Creek, Custer, Delta, Elbert, Grand, Jackson, Larimer, and Mesa Counties.
- thaspiae* Graenicher, 1903 – Archuleta, Boulder, Clear Creek, Costilla, Delta, Denver, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, La Plata, Larimer, Mesa, Mineral, Montrose, Park, Routt, San Juan, and Teller Counties.
- topazana* Cockerell, 1906 – Boulder, Clear Creek, Custer, Delta, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, Larimer, Las Animas, Mesa, Moffat, Park, Pitkin, Pueblo, Routt, San Miguel, and Teller Counties.
- vicinoides* Viereck, 1904 – Archuleta, Boulder, Chaffee, Clear Creek, Costilla, El Paso, Garfield, Gilpin, Grand, Huerfano, Jefferson, La Plata, Larimer, Mesa, Park, Routt, and Teller Counties.
- (*Belandrena*)
- sphaeralceae* Linsley, 1939 – Delta and Mesa Counties. This is new for Colorado based on a female specimen housed at UCMC collected in “Escalante Cyn. 4mi”, on May 21, 1963 by C.J. McCoy and B. Vogel and determined by U.N. Lanham and confirmed by TG.
- (*Callandrena* sensu stricto of Larkin et al. (2006))
- (*accepta* group)
- accepta* Viereck, 1916 – Alamosa, Arapahoe, Baca, Bent, Boulder, Denver, Douglas, El Paso, Elbert, Fremont, Gilpin, Jefferson, Kit Carson, Larimer, Lincoln, Montezuma, Morgan, Otero, Pueblo, Weld, and Yuma Counties.
- (*aureocincta* group)
- simulata* Smith, 1879 – Montrose County.
- (*Callandrena* sensu lato of LaBerge (1967), in addition to species listed above)
- (*gardineri* group)
- ardis* LaBerge, 1967 – Lincoln and Weld Counties. Note: the specific epithet “ardis” was misspelled as “aridis” in Hurd (1979: 1779).
- berkeleyi* Viereck and Cockerell, 1914 – Denver County.
- biscutellata* Viereck, 1917 – Baca County.
- gardineri* Cockerell, 1906 – Baca, Boulder, Denver, Douglas, El Paso, Elbert, Fremont, Huerfano, Jefferson, Larimer, Lincoln, Mesa, Pueblo, and Weld Counties plus Los Pinos.
- utahensis* LaBerge, 1967 – Delta and La Plata Counties.
- (*helianthi* group)
- haynesi* Viereck and Cockerell, 1914 – Baca, Cheyenne, Logan, Washington, and Weld Counties.
- helianthi* Robertson, 1891 – Adams, Arapahoe, Boulder, Denver, Dolores, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Huerfano, Jefferson, Larimer, Las Animas, Lincoln, Logan, Montezuma, Morgan, Otero, Prowers, Pueblo, Routt, Saguache, Weld, and Yuma Counties.
- pecosana* Cockerell, 1913 – Boulder, Douglas, El Paso, Elbert, Gilpin, Larimer, and Weld Counties.

- vulpicolor* Cockerell, 1897 – Costilla, Huerfano, Larimer, Rio Blanco, and San Miguel Counties plus Great Sand Dunes National Monument and Preserve.
- (*krigiana* group)
tonkaworum Viereck, 1917 – Baca County.
- (*melliventris* group)
rudbeckiae Robertson, 1891 – Phillips County.
- (*Cnemidandrena*)
(*apacheorum* group)
apacheorum Cockerell, 1897 – Boulder, Custer, Eagle, Garfield, Grand, Gunnison, Jackson, Lake, Larimer, Mineral, Montezuma, Montrose, Park, Routt, and Teller Counties.
- (*chromotricha* group)
chromotricha Cockerell, 1899 – Chaffee, El Paso, Jefferson, Larimer, and Las Animas Counties.
- (*costillensis* group)
columbiana Viereck, 1917 – Boulder, Clear Creek, Costilla, Eagle, El Paso, Gilpin, Gunnison, Huerfano, Jackson, Jefferson, Lake, Larimer, Mineral, Montrose, Pitkin, Routt, and Teller Counties.
costillensis Viereck and Cockerell, 1914 – Boulder, Chaffee, Clear Creek, Costilla, Dolores, Eagle, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, La Plata, Lake, Larimer, Mineral, Park, San Miguel, and Teller Counties.
- (*hirticincta* group)
colletina Cockerell, 1906 – Alamosa, Costilla, Dolores, Garfield, Huerfano, Jackson, Larimer, Mesa, Mineral, Moffat, Rio Blanco, Rio Grande, Saguache, and Teller Counties.
hirticincta Provancher, 1888 – Boulder, Delta, Douglas, El Paso, Elbert, Grand, Jackson, Jefferson, Larimer, Montrose, and Teller Counties.
surda Cockerell, 1910 – Boulder, Chaffee, Costilla, Delta, Fremont, Garfield, Huerfano, La Plata, Larimer, Mesa, Moffat, Montezuma, Montrose, Pitkin, Rio Blanco, Saguache, and San Miguel Counties.
- (*mentzeliae* group)
mentzeliae Cockerell, 1897 – Alamosa, Baca, Boulder, Conejos, Denver, El Paso, Jefferson, Larimer, Mesa, and Pueblo Counties.
- (*nubecula* group)
canadensis Dalla Torre, 1896 – Boulder, Clear Creek, Denver, Grand, Jackson, Jefferson, Larimer, Saguache, and Teller Counties.
nubecula Smith, 1853 – Boulder, Denver, Douglas, Eagle, Elbert, Fremont, Garfield, Jefferson, Larimer, Pueblo, Weld, and Yuma Counties.
xanthigera Cockerell, 1900 – Costilla, Eagle, and Saguache Counties.
- (*sulcata* group)
ramaleyi Cockerell, 1931 – Alamosa, Costilla, and Montezuma Counties plus the San Luis Valley.
- (*scutellinitens* group)
runcinatae Cockerell, 1906 [= senior synonym of *Andrena robervalensis* Mitchell; see Gusenleitner et al. (2005)] – Fremont, Larimer, Saguache, and Teller Counties.
- (*Conandrena*)
bradleyi Viereck, 1907 – Boulder County.
cheyennorum Viereck and Cockerell, 1914 – Colorado.
- (*Dactylandrena*)
berberidis Cockerell, 1905 – Boulder, Jefferson, and Routt Counties.
porterae Cockerell, 1900 – Boulder, Clear Creek, Conejos, Douglas, El Paso, Elbert, Huerfano, Jefferson, Larimer, Pueblo, and Teller Counties.
- (*Dasyandrena*)
crystata Viereck, 1917 – Montrose County.

(*Diandrena*)

(*chalybioides* group)

ablegata (Cockerell, 1922) – Routt County. This species is newly confirmed for Colorado. Thorp (1969: 94-95) notes “Michener (1937[a]) records this species from Hayden, Routt County, Colorado, but since I have not seen this specimen, it has not been included on the map or in the discussion of distribution.” A specimen bearing “Hayden Col. 6-14-[19]07”, “Collected S.A. Johnson” and “*Diandrena ablegata* Ckll. Det. Michener” labels was located at CSUC and sent to R.W. Thorp who confirmed the *D. ablegata* identification.

(*nothocalaidis* group)

nothocalaidis (Cockerell, 1905) – Boulder, Grand, Larimer, Mesa, Rio Blanco, and Routt Counties.

(*Euandrena*)

algida Smith, 1853 – Boulder, Costilla, Elbert, Fremont, Grand, Gunnison, Huerfano, Jackson, Jefferson, La Plata, Larimer, Mesa, Montrose, Park, Routt, Summit, and Teller Counties.

antonitonis Viereck and Cockerell, 1914 – Conejos County. This species is known only from Colorado. Viereck and Cockerell (1914: 56) list the female USNM type No. 18164 as being collected from Antonito on August 5, 1899 by Gillette.

astragali Viereck and Cockerell, 1914 – Boulder, Jefferson, and Larimer Counties.

auricoma Smith, 1879 – Boulder, Jefferson, and Larimer Counties.

geranii Robertson, 1891 – Archuleta, Boulder, Custer, El Paso, Elbert, Jefferson, Larimer, and Weld Counties.

nigrihirta (Ashmead, 1890) – Boulder, Chaffee, Clear Creek, Custer, Douglas, El Paso, Gilpin, Gunnison, Jackson, Larimer, Pitkin, Rio Grande, Routt, and Teller Counties.

nigrocaerulea Cockerell, 1897 – Delta, Grand, and Mesa Counties.

padoucorum Viereck and Cockerell, 1914 – Jefferson County. This species is known only from Colorado. Viereck and Cockerell (1914: 38) list the male type as being collected from Evergreen on July 16, 1897 from *Sedum stenopetalum* by Dunning (1308).

segregans Cockerell, 1900 – Boulder, Costilla, Custer, El Paso, Gunnison, Huerfano, Moffat, Montezuma, and Teller Counties.

(*Gonandrena*)

persimulata Viereck, 1917 – Boulder, Eagle, and Jefferson Counties.

(*Holandrena*)

cressonii Robertson, 1891 – See subspecies. The species also occurs in Alamosa, Baca, Dolores, Huerfano, Mesa, Moffat, Montezuma, Pueblo, San Miguel, Weld, and Yuma Counties.

cressonii infasciata Lanham, 1949 – Archuleta, Boulder, Delta, Denver, Douglas, El Paso, Garfield, Jefferson, La Plata, Larimer, Montrose, and Routt Counties.

cressonii kansensis Cockerell, 1899 – El Paso and Elbert Counties.

moquiorum Viereck and Cockerell, 1914 – Fremont County.

(*Iomelissa*)

violae Robertson, 1891 – Boulder and Larimer Counties.

(*Larandrena*)

miserabilis Cresson, 1872 – Archuleta, Boulder, Douglas, Elbert, Garfield, Jefferson, Larimer, Mesa, Moffat, Montezuma, Montrose, Pueblo, and Routt Counties.

(*Leucandrena*)

barbilabris (Kirby, 1802) – Archuleta, Boulder, Clear Creek, Costilla, Denver, Douglas, El Paso, Elbert, Fremont, Grand, Gunnison, Jefferson, La Plata, Larimer, Mesa, Montrose, Park, Routt, San Miguel, and Teller Counties plus Great Sand Dunes National Monument and Preserve and the South Fork of the Rio Grande River.

monilicornis Cockerell, 1896 – El Paso County.

(*Melandrena*)

carlini Cockerell, 1901 – Boulder, Custer, Denver, Douglas, El Paso, Elbert, Gilpin, Grand, Gunnison, Huerfano, Jefferson, Larimer, and Routt Counties.

cerasifolii Cockerell, 1896 – Archuleta, Delta, Garfield, Mesa, and Montrose Counties.

commoda Smith, 1879 – Boulder, Denver, Douglas, El Paso, Elbert, Jefferson, Larimer, and Pueblo Counties.

lupinorum Cockerell, 1906 – Alamosa, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Jefferson, Larimer, Mesa, Moffat, Montezuma, Montrose, Park, Rio Blanco, Rio Grande, Saguache, San Miguel, Teller, and Weld Counties.

nivalis Smith, 1853 – Archuleta, Boulder, Clear Creek, Conejos, Costilla, Custer, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jefferson, Larimer, Las Animas, Mesa, Montrose, Rio Blanco, Rio Grande, Routt, San Miguel, and Teller Counties.

pertristis Cockerell, 1905 – See subspecies.

pertristis carliniformis Viereck and Cockerell, 1914 – Boulder, Conejos, Elbert, Jefferson, Lake, Moffat, and Routt Counties.

platyrhina Cockerell, 1930 – Archuleta, Boulder, La Plata, and Montezuma Counties.

transnigra Viereck, 1904 – Archuleta, Boulder, Chaffee, Conejos, Costilla, Custer, Denver, Dolores, Eagle, El Paso, Elbert, Fremont, Garfield, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, Lake, Larimer, Mesa, Montezuma, Montrose, Rio Blanco, Routt, and San Miguel Counties plus the South Fork of the Rio Grande River.

vicina Smith, 1853 – Boulder, Douglas, El Paso, Elbert, Gilpin, Gunnison, Jefferson, Larimer, Mesa, Routt, San Miguel, and Teller Counties.

(*Micrandrena*)

(*illinoiensis* group)

illinoiensis Robertson, 1891 – Alamosa, Arapahoe, Bent, Boulder, Denver, Douglas, El Paso, Elbert, Jefferson, Kit Carson, Larimer, Mesa, Park, Pueblo, Sedgwick, Teller, and Weld Counties.

nigrae Robertson, 1905 – Bent, Boulder, Costilla, Elbert, Jefferson, Kit Carson, Larimer, Pueblo, Sedgwick, and Weld Counties.

salictaria Robertson, 1905 – Boulder, Costilla, Douglas, El Paso, Elbert, Hinsdale, Jefferson, Larimer, and Pueblo Counties.

(*piperi* group)

candidiformis Viereck and Cockerell, 1914 – Boulder, Jefferson, and Larimer Counties.

kristina Lanham, 1983 [“1982”] – Boulder, Delta, Fremont, Larimer, Mesa, Rio Blanco, and San Miguel Counties. This species is known only from Colorado. Lanham (1982: 309-311) records the female holotype from 4 miles north of Boulder, 5,500 ft. on May 23, 1980 at flowers *Physaria beffii* by U.N. Lanham. Paratypes are from locals in Boulder and Larimer Counties. Additional county records noted here are based on UCMC specimens determined by U.N. Lanham.

melanochroa Cockerell, 1898 – Boulder, Delta, Denver, Grand, Jefferson, Larimer, and Rio Blanco Counties.

microchlora Cockerell, 1922 – Boulder, Delta, Denver, and Larimer Counties.

piperi Viereck, 1904 – Delta, Garfield, La Plata, Mesa, Montrose, and Rio Blanco Counties.

ziziae Robertson, 1891 – Denver County.

(*primulifrons* group)

robinsoni Lanham, 1987 – Baca, Huerfano, Larimer, and Weld Counties. This species is known only from Colorado. Lanham (1987a: 325-327) records the female holotype from 10 miles southwest of Loveland, 5,500 ft. on May 26, 1980 at flowers of *Physaria belli* by P. Robinson, paratypes from Weld County, and one additional record from Baca County. The Huerfano County record is based on a female UCMC specimen determined by VLS.

(*Notandrena*)

nothoscordi Robertson, 1897 – Elbert County.

(*Onagrاندrena*)

anograe Cockerell, 1901 – Chaffee, El Paso, Gunnison, Huerfano, Mesa, Park, and Teller Counties.

anograe anograe Cockerell, 1901 – The expected subspecies for Colorado.

(*Parاندrena*)

andrenoides (Cresson, 1878) – Alamosa, Archuleta, Boulder, Costilla, Custer, Douglas, El Paso, Elbert, Garfield, Grand, Hinsdale, Kit Carson, Larimer, Pueblo, and Sedgwick Counties.

wellesleyana Robertson, 1897 – Douglas and Jackson Counties. This is new for Colorado based on two UCMC specimens. The Jackson County specimen is a male collected 7 miles east of Cowdry on May 17, 1967 from *Salix* by U.N. Lanham. The Douglas County specimen is a female collected from Walden, 8,300 ft. on May 16, 1978 from *Salix* by U. Lanham. Both specimens were determined by U.N. Lanham and confirmed by TG.

(*Plastاندrena*)

(*crataegi* group)

argemonis Cockerell, 1896 – Archuleta, Boulder, El Paso, Fremont, Huerfano, Jefferson, Larimer, and Las Animas Counties.

crataegi Robertson, 1893 – Archuleta, Boulder, Chaffee, Custer, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gunnison, Huerfano, Jefferson, Larimer, Las Animas, Mesa, Moffat, Montezuma, Montrose, Pueblo, Routt, and San Miguel Counties.

(*prunorum* group)

casadae Cockerell, 1896 – Colorado. Hurd (1979: 1844) records this poorly known species from New Mexico and Colorado. LaBerge (1969) did not treat this species, which is, perhaps, a synonym of *A. prunorum* (JSA unpublished, based on brief examination of the holotype at USNM).

prunorum Cockerell, 1896 – See subspecies.

prunorum prunorum Cockerell, 1896 – Alamosa, Archuleta, Baca, Bent, Boulder, Chaffee, Crowley, Custer, Delta, Denver, Dolores, Douglas, Eagle, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jefferson, La Plata, Lake, Larimer, Mesa, Moffat, Montezuma, Montrose, Park, Rio Blanco, Rio Grande, Routt, San Miguel, Sedgwick, Teller, and Weld Counties.

(*Ptilاندrena*)

distans Provancher, 1888 – Park County.

pallidiscopa (Viereck, 1904) – Boulder, Denver, and Larimer Counties.

(*Rhacاندrena*)

brevipalpis Cockerell, 1930 – Boulder and Denver Counties.

coruscata LaBerge, 1977 – Boulder County.

cragini Cockerell, 1899 – Boulder County.

robertsonii Dalla Torre, 1896 – Boulder, Douglas, Huerfano, and San Miguel Counties.

(*Rhaphاندrena*)

prima Casad, 1896 – Huerfano County. This is new for Colorado based on one female CSUC specimen collected from Mt. Shadow Falls Ranch, end of 312 Rd., on April 15, 2006 by B. Kondratieff and W. Cranshaw and determined by TG.

(*Scaphاندrena*)

(*merriami* group)

bruneri Viereck and Cockerell, 1914 – Mesa and Montezuma Counties.

hicksi Cockerell, 1925 – Boulder, Costilla, Larimer, Mesa, Rio Blanco, and Routt Counties.

merriami Cockerell, 1901 – Denver, Douglas, El Paso, Garfield, Grand, Gunnison, Jefferson, Larimer, Mesa, Montrose, Rio Blanco, Routt, Teller, and Weld Counties.

nigerrima Casad, 1896 – Boulder, Jefferson, Larimer, and Weld Counties.

- shoshoni* Ribble, 1974 – Gunnison County. This is new for Colorado based on a specimen collected as part of R. Irwin's research at the Rocky Mountain Biological Laboratory and determined by TG.
- sladeni* Viereck, 1924 – Rio Blanco County. This is new for Colorado based on a female UCMC specimen collected 6 miles northeast of Meeker on May 31, 1989 between 14:30-16:00 hrs. from flowers of *Sisymbrium loeseli* by P. Robinson, determined by U.N. Lanham, and confirmed by TG.
- vestali* Cockerell, 1913 – Boulder County.
- walleyi* Cockerell, 1932 – Garfield, Mesa, Moffat, and Rio Blanco Counties.
- (*scurra* group)
- ellisiae* Cockerell, 1914 – Boulder, El Paso, Fremont, Huerfano, Jefferson, Larimer, and Weld Counties. The status of this species is problematic; see Gusenleitner and Schwarz (2002).
- montrosensis* Viereck and Cockerell, 1914 – Colorado. The status of this species is problematic; see Lanham (1993a) and Gusenleitner and Schwarz (2002).
- scurra* Viereck, 1904 – Adams, Boulder, Chaffee, Eagle, El Paso, Garfield, Grand, Huerfano, Larimer, Mesa, Mineral, Moffat, Montrose, Park, Pueblo, Rio Blanco, San Miguel, Teller, and Weld Counties.
- sieverti* Cockerell, 1906 – Colorado. The status of this species is problematic; see Lanham (1993a) and Gusenleitner and Schwarz (2002).
- (*Scrapteropsis*)
- (*alleghaniensis* group)
- alleghaniensis* Viereck, 1907 – Gunnison County.
- (*imitatrix* group)
- imitatrix* Cresson, 1872 – Bent, Boulder, Denver, Douglas, Gunnison, Jefferson, Kit Carson, Larimer, Mesa, Pueblo, and Weld Counties.
- (*Simandrena*)
- angustitarsata* Viereck, 1904 – Boulder, Garfield, Jefferson, Larimer, and Routt Counties.
- nasonii* Robertson, 1895 – Boulder, Douglas, El Paso, Jefferson, Larimer, Pueblo, and Routt Counties.
- pallidifovea* (Viereck, 1904) – Delta, Larimer, Mesa, Moffat, Montrose, Rio Blanco, and Routt Counties.
- wheeleri* Graenicher, 1904 – Boulder, Custer, El Paso, Garfield, Grand, Larimer, Mesa, Moffat, Rio Blanco, Routt, and San Miguel Counties.
- (*Thysandrena*)
- candida* Smith, 1879 – Boulder, Clear Creek, Denver, Douglas, Garfield, Gilpin, Jefferson, and Larimer Counties.
- livida* LaBerge, 1977 – Los Pinos, Colorado; see LaBerge (1977: 48).
- medionitens* Cockerell, 1902 – Alamosa, Boulder, Costilla, Delta, Douglas, El Paso, Elbert, Gilpin, Grand, Gunnison, Hinsdale, Jefferson, La Plata, Larimer, Park, Routt, Teller, and Weld Counties.
- trizonata* (Ashmead, 1890) – Boulder, Costilla, Custer, Denver, Grand, Jackson, La Plata, Larimer, Mesa, Summit, and Teller Counties.
- vierecki* Cockerell, 1904 – Archuleta, Boulder, Costilla, Custer, Delta, Denver, Dolores, Douglas, El Paso, Elbert, Fremont, Grand, Gunnison, Hinsdale, Huerfano, Jefferson, Larimer, Mesa, Moffat, Montrose, Rio Blanco, Routt, San Miguel, and Weld Counties.
- w-scripta* Viereck, 1904 – Boulder, Custer, Dolores, Douglas, El Paso, Elbert, Fremont, Gilpin, Grand, Gunnison, Hinsdale, Jackson, Jefferson, Kit Carson, Larimer, Mesa, Montrose, Park, Rio Blanco, Routt, San Juan, San Miguel, and Weld Counties plus the South Fork of the Rio Grande River.

(*Trachandrena*)

- amphibola* (Viereck, 1904) – Boulder, Delta, Douglas, Eagle, Elbert, Garfield, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Larimer, Mesa, Moffat, Montrose, and Routt Counties.
- ceanothi* Viereck, 1917 – Douglas and Larimer Counties.
- cleodora* (Viereck, 1904) – See subspecies.
- cleodora cleodora* (Viereck, 1904) – Boulder County.
- cupreotincta* Cockerell, 1901 – Archuleta, Boulder, Dolores, Garfield, Grand, La Plata, Larimer, Mesa, Moffat, Montezuma, Montrose, Rio Blanco, and Routt Counties plus Great Sand Dunes National Monument and Preserve.
- cyanophila* Cockerell, 1906 – Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Delta, Dolores, Douglas, Eagle, El Paso, Elbert, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Mesa, Park, Pitkin, Routt, San Miguel, and Teller Counties.
- forbesii* Robertson, 1891 – Archuleta, Boulder, Dolores, Douglas, Elbert, Fremont, Grand, Jackson, Larimer, Mesa, Moffat, Montrose, and Park Counties.
- hippotes* Robertson, 1895 – Archuleta, Boulder, Hinsdale, Kit Carson, and Larimer Counties plus Los Pinos.
- mariae* Robertson, 1891 – Archuleta, Boulder, Costilla, Delta, Douglas, El Paso, Elbert, Huerfano, Jefferson, Kit Carson, Larimer, Sedgwick, and Weld Counties.
- miranda* Smith, 1879 – Boulder, Clear Creek, Costilla, Custer, Douglas, El Paso, Fremont, Gilpin, Hinsdale, Jefferson, Larimer, Pueblo, Routt, and Teller Counties.
- nuda* Robertson, 1891 – Archuleta, Boulder, Douglas, El Paso, Elbert, Jefferson, Larimer, Montezuma, Montrose, Park, and Pueblo Counties.
- quintilis* Robertson, 1898 – Boulder, Larimer, Mesa, and Routt Counties
- salicifloris* Cockerell, 1897 – Boulder, Delta, El Paso, Gilpin, Grand, Jackson, Jefferson, Larimer, Mesa, Routt, and Summit Counties.
- sigmundi* Cockerell, 1902 – Boulder, Costilla, Custer, Dolores, Douglas, Elbert, Hinsdale, Huerfano, Jackson, Jefferson, and Larimer Counties.
- striatifrons* Cockerell, 1897 – Grand and Jackson Counties. This is new for Colorado based on UCMC specimens. Two Grand County records are as follows: one male specimen from 4 miles west of Tabernash, 8,000 ft. on May 23, 1964 at *Salix* by U.N. Lanham and one female collected 2 miles South of Kremmling, 7,500 ft. on May 20, 1964 at *Salix* by U.N. Lanham. The Jackson County record is based on a female collected 23 miles south of Walden, 8,500 ft. on May 22, 1964 at *Salix* by U.N. Lanham. All specimens were determined by U.N. Lanham.

(*Tylandrena*)

- erythrogaster* (Ashmead, 1890) – Archuleta, Bent, Boulder, Costilla, Custer, Delta, Douglas, El Paso, Elbert, Huerfano, Kit Carson, Larimer, Pueblo, Sedgwick, Weld, and Yuma Counties.
- hallii* Dunning, 1898 – Boulder, Dolores, Douglas, Eagle, El Paso, Fremont, Gunnison, Jefferson, Larimer, Mesa, Moffat, Montezuma, Montrose, Rio Blanco, Routt, San Miguel, and Weld Counties.
- perplexa* Smith, 1853 – Archuleta, Boulder, Douglas, El Paso, Elbert, Jefferson, Larimer, and Routt Counties.
- subaustralis* Cockerell, 1898 – Archuleta County. This is new for Colorado based on two female UCMC specimens collected 9 miles north of Arboles on May 27, 1977 from flowers of *Salix* by U. Lanham and P. Byron and determined by U.N. Lanham and confirmed by JSA.
- subtilis* Smith, 1879 – Archuleta, Delta, Garfield, Gunnison, Mesa, Moffat, Montezuma, Montrose, Routt, and San Miguel Counties.
- wilmattae* Cockerell, 1906 – Boulder, Douglas, Jefferson, Larimer, and Mesa Counties.

Panurginae

Calliopsini

Calliopsis (References: Danforth 1994; Rozen 1958; Shinn 1967)

(*Calliopsima*)

(*crypta* group)

chlorops Cockerell, 1899 – Boulder, Chaffee, Conejos, Costilla, Custer, El Paso, Fremont, Jackson, La Plata, Larimer, Las Animas, Mesa, Montezuma, Pitkin, Rio Blanco, Teller, and Weld Counties.

(*coloratipes* group)

coloradensis Cresson, 1878 – Boulder, Denver, Jefferson, Larimer, Las Animas, Lincoln, Saguache, Teller, Weld, and Yuma Counties.

(*pectidis* group)

philiphunteri Shinn and Engel, 2003 [= replacement name for *Calliopsis (Calliopsima) timberlakei* Shinn, 1967; see Shinn and Engel (2003)] – Montezuma County. This is new for Colorado based on three UCRC specimens collected 11.1 miles south of Cortez on August 27, 1967, two from *Chrysothamnus* and one from *Gutierrezia* and confirmed by D. Yanega.

(*Calliopsis*)

(*andreniformis* group)

andreniformis Smith, 1853 – Alamosa, Boulder, Costilla, Jefferson, Larimer, and Weld Counties.

teucarii Cockerell, 1899 – Alamosa, Archuleta, Douglas, Fremont, La Plata, Larimer, Mineral, Montrose, Ouray, Park, Saguache, and Teller Counties.

(*Hypomacrotera*)

callops (Cockerell and Porter, 1899) – Baca, Larimer, Prowers, and Pueblo Counties.

subalpina Cockerell, 1894 – Bent, Mesa, Moffat, and Pueblo Counties. This is new for Colorado based, in part, on UCMC specimens. The Pueblo County specimens (male and female) were taken 2 miles south of Cedarwood on June 8, 1965 from *Sphaeralcea* by U.N. Lanham and determined by U.N. Lanham and confirmed by TG.

(*Nomadopsis*) We prefer to place all species of *Nomadopsis* sensu lato of Rozen (1958) in a single subgenus, i.e. to regard *Micronomadopsis* in addition to *Macronomadopsis* as a synonym of *Nomadopsis* and to treat all infrageneric groupings of Rozen, including the *boharti* group, as formal species groups.

(*scutellaris* group)

australior Cockerell, 1897 – Boulder, Conejos, Delta, Lincoln, Otero, and Pueblo Counties.

scitula Cresson, 1878 – See subspecies. This species also occurs in Larimer, Ouray, and Routt Counties.

scitula scitula Cresson, 1878 – Alamosa, Boulder, Denver, Fremont, Garfield, Gilpin, Lake, Moffat, Park, Rio Grande, San Miguel, and Teller Counties.

(*zebrata* group)

zebrata Cresson, 1878 – See subspecies. This species also occurs in Elbert, Gunnison, and Larimer Counties.

zebrata zebrata Cresson, 1878 – Alamosa, Boulder, Chaffee, Costilla, Gilpin, Grand, Ouray, and Teller Counties.

(*Verbenapis*)

nebraskensis Crawford, 1902 – Yuma County.

Protandrenini

Protandrena (References: Ascher and Pickering 2011; Timberlake 1976)

bancrofti Dunning, 1897 – Baca, Boulder, Larimer, and Sedgwick Counties.

cockerelli Dunning, 1897 – Boulder, Crowley, Larimer, and Las Animas Counties.

***Pseudopanurgus* [sensu lato] (References: Ascher 2004; Ascher and Pickering 2011; Cockerell 1922b; Giles and Ascher 2006; Hurd 1979; Timberlake 1964b, 1967, 1973, 1975)**

- (*aethiops* group) [= *Pseudopanurgus* sensu Timberlake (1973)]
aethiops (Cresson, 1872) – Baca, Boulder, Fremont, Garfield, Jefferson, Larimer, Morgan, Otero, Pueblo, Weld, and Yuma Counties.
fraterculus (Cockerell, 1896) – See subspecies.
fraterculus timberlakei Cockerell, 1931 – Larimer County.
- (*bakeri* group) [= *Heterosarus* sensu Timberlake (1975), in part]
bakeri (Cockerell, 1896) – Alamosa, Boulder, Eagle, Fremont, Grand, Lake, Larimer, Las Animas, Mineral, Ouray, and Teller Counties.
- (*rudbeckiae* group) [= *Pterosarus*]
albitarsis (Cresson, 1872) – El Paso, Larimer, and Logan Counties.
altissimus (Cockerell, 1922) – Ouray County. This species is known only from Colorado. Cockerell (1922b: 3) records the male type and two female specimens from Ouray about 8,000 ft. on July 11[-14], 1919 by H.F. Schwarz and an additional female specimen from Ouray obtained on the same date but from about 8,500 ft. by sweeping grass among Douglas fir, aspen, scrub oak, etc.
atricornis (Cresson, 1878) – Boulder, Chaffee, Fremont, Larimer, and Montezuma Counties.
boylei (Cockerell, 1896) – Colorado.
citripes (Ashmead, 1890) – Colorado.
didirupa (Cockerell, 1908) – Boulder, Chaffee, El Paso, Fremont, La Plata, Larimer, Mesa, Mineral, Montezuma, and Ouray Counties.
innuptus (Cockerell, 1896) – Arapahoe, Boulder, Fremont, Gilpin, Larimer, Otero, and Pueblo Counties.
irregularis (Cockerell, 1922) – Boulder County.
leucopterus (Cockerell, 1923) – Morgan and Washington Counties.
lutzae (Cockerell, 1922) – Otero County. This species is known only from Colorado. Cockerell (1922b: 7-8) records the female AMNH type from La Junta, along the road between irrigated fields, near town about 4,100 ft. on August 12, 1920 by Mrs. F.E. Lutz. The name is miscited as “lutzi” on the determination label of the type specimen.
nebrascensis (Crawford, 1903) – Boulder, Denver, La Plata, and Yuma Counties.
ornatipes (Cresson, 1872) – Colorado.
perlaevis (Cockerell, 1896) – Boulder and Yuma Counties.
piercei (Crawford, 1903) – Boulder, El Paso, and Teller Counties.
porterae (Cockerell, 1900) – Boulder, Fremont, and Larimer Counties.
pulchricornis (Cockerell, 1922) – Eagle County. This species is known only from Colorado. Cockerell (1922b: 10) records the female AMNH type from Tennessee Pass, about 10,500 ft. on August 6-8, 1920 by F.E. Lutz.
renimaculatus (Cockerell, 1896) – Boulder, Eagle, and Grand Counties.
- (unplaced group) [= *Heterosarus* sensu Timberlake (1975), in part]
dawsoni Timberlake, 1964 – Colorado.
flavotinctus (Cockerell, 1898) – Fremont and Teller Counties.
parvus (Robertson, 1892) – El Paso County.

Panurgini

Panurginina

***Panurginus* (References: Crawford 1926)**

- beardsleyi* (Cockerell, 1904) – Baca, Bent, Boulder, Kiowa, and Weld Counties. Cockerell (1907b: 247) records this species (cited as a *Greeleyella*) from the city of Boulder, collected in June at *Malvastum* by W.P. Cockerell. While UCMC houses no specimens that document this published record, UCRC houses a specimen collected in Boulder on June 17, 1903 and determined by T.D.A. Cockerell.

cressoniellus Cockerell, 1898 – Boulder, Conejos, Dolores, Eagle, Gunnison, Lake, La Plata, Larimer, Mesa, Ouray, San Miguel, and Teller Counties.

ineptus Cockerell, 1922 – Boulder, Conejos, Eagle, Gunnison, Jackson, Mesa, Mineral, Moffat, and Park Counties.

Perditina

***Macrotera* (References: Bennett and Breed 1985; Custer 1928c, 1929b; Danforth 1996; Snelling and Danforth 1992; Timberlake 1954, 1960, 1968)**

(*Cockerellula*)

opuntiae (Cockerell, 1922) – Boulder, El Paso, and Jefferson Counties.

***Perdita* (References: Cockerell 1922a; Griswold and Miller 2010; Griswold and Parker 1988; Timberlake 1954, 1956, 1958, 1960, 1962, 1964a, 1968, 1971, 1980a)**

(*Cockerellia*)

albipennis Cresson, 1868 – See subspecies. This species also occurs in El Paso, Huerfano, La Plata, Larimer, Las Animas, and Weld Counties.

albipennis albipennis Cresson, 1868 – Alamosa, Arapahoe, Baca, Bent, Boulder, Fremont, Kiowa, Mesa, Moffat, Montezuma, Otero, Prowers, Washington, and Yuma Counties.

heliophila Cockerell, 1916 – Montezuma and Otero Counties.

lepachidis Cockerell, 1896 – See subspecies.

lepachidis lepachidis Cockerell, 1896 – Logan County.

lingualis Cockerell, 1896 – Bent, Fremont, Kiowa, Larimer, Mesa, and Otero Counties.

(*Hexaperdita*)

ignota Cockerell, 1896 – See subspecies. This species also occurs in Garfield and La Plata Counties.

ignota crawfordi Cockerell, 1901 – Boulder, Jefferson, and Larimer Counties.

ignota ignota Cockerell, 1896 – Boulder and Douglas Counties.

(*Perdita*)

(*halictoides* group)

halictoides Smith, 1853 – Boulder and Larimer Counties.

levigata Timberlake, 1968 – Fremont County. This species is known only from Colorado.

Timberlake (1968:60-61) records the male holotype from Coaldale, 7,800 ft. on August 4, 1957 at *Physalis* by C.D. Michener.

sexmaculata Cockerell, 1895 – Fremont, Larimer, Las Animas, and Prowers Counties.

sexmaculata sexmaculata Cockerell, 1895 – The expected subspecies for Colorado.

(*octomaculata* group)

affinis Cresson, 1878 – Boulder, Fremont, Gilpin, Huerfano, Larimer, Las Animas, Moffat, Pitkin, and Rio Blanco Counties.

bigeloviae Cockerell, 1896 – Logan and Otero Counties.

bruneri Cockerell, 1897 – Boulder, Costilla, Denver, Larimer, Las Animas, Moffat, and Weld Counties.

crotonis Cockerell, 1896 – Weld County.

dolichocephala Swenk and Cockerell, 1907 – Weld and Yuma Counties.

fallax Cockerell, 1896 – Alamosa, Boulder, Garfield, La Plata, Larimer, Moffat, Rio Blanco, and Weld Counties.

gutierreziae Cockerell, 1896 – Costilla County.

lasiogastra Timberlake, 1929 – Moffat County.

laticincta Swenk and Cockerell, 1907 – Boulder, Chaffee, Larimer, Washington, and Weld Counties.

luteiceps Cockerell, 1896 – Alamosa and Routt Counties.

luteola Cockerell, 1894 – Costilla and Moffat Counties.

maculigera Cockerell, 1896 – See subspecies.

maculigera bilineata Timberlake, 1929 – Weld County.

melanostoma Swenk and Cockerell, 1907 – See subspecies.

- melanostoma melanostoma* Swenk and Cockerell, 1907 – Costilla County.
- nuda* Cockerell, 1896 – Moffat County.
- phymatae* Cockerell, 1895 – Moffat County. This is new for Colorado based on two KSEM specimens collected 8 miles east of Maybell on August 17, 1959 by E. Ordway and determined by P.H. Timberlake.
- rectangulata* Cockerell, 1896 – Larimer County.
- reperta* Timberlake, 1968 – Alamosa County plus Great Sand Dunes National Monument and Preserve.
- snowii* Cockerell, 1896 – Boulder, Costilla, Larimer, and Moffat Counties plus Ute Creek.
- solidaginis* Cockerell, 1922 – Boulder County. This species is known only from Colorado. Cockerell (1922a: 12) records the male type series from White Rocks, near Boulder, on August 13, 1919 at flowers of *Solidago* by W.P. Cockerell.
- swenki* Crawford, 1915 – Larimer County.
- tridentata* Stevens, 1919 – Weld County.
- xanthochroa* Timberlake, 1960 – Moffat County.
- (*sphaeralceae* group)
- calloleuca* Cockerell, 1922 – See subspecies. This species also occurs in Montrose County. This is the type and only species of the *calloleuca* species subgroup.
- calloleuca calloleuca* Cockerell, 1922 – Delta, Dolores, and Mesa Counties.
- florissantella* Cockerell, 1906 – Alamosa, Costilla, Park, and Teller Counties plus Great Sand Dunes National Monument and Preserve. This is the type species of the *florissantella* species subgroup.
- mimosae* Timberlake, 1964 – See subspecies.
- mimosae efferta* Timberlake, 1980 – Pueblo County.
- nigroclypeata* Timberlake, 1964 – Alamosa and Rio Grande Counties. This species is known only from Colorado. Timberlake (1964a: 314-316) records the female holotype from Monte Vista on July 2, 1933 by K. Moehler and a female paratype from Great Sand Dunes National Monument in Alamosa County on June 21, 1955 by Hugo G. Rodeck. Species subgroup is uncertain.
- salicis* Cockerell, 1896 – See the five subspecies that have been reported for Colorado. This species is a member of the *exclamans* species subgroup.
- salicis coloradana* Timberlake, 1929 – Delta and Garfield Counties.
- salicis imperialis* Cockerell, 1925 – Archuleta and Fremont Counties.
- salicis salicis* Cockerell, 1896 – Colorado.
- salicis subtristis* Cockerell, 1933 – Archuleta, Chaffee, and Fremont Counties.
- salicis tristis* Timberlake, 1964 – Delta County.
- tortifoliae* Cockerell, 1906 – See subspecies. This is the type species of the *tortifoliae* species subgroup.
- tortifoliae tortifoliae* Cockerell, 1906 – Park and Teller Counties.
- wilmattae* Cockerell, 1906 – See subspecies. This is a member of the *tortifoliae* species subgroup.
- wilmattae miricornis* Cockerell, 1922 – Mesa and Moffat Counties.
- wilmattae wilmattae* Cockerell, 1906 – Chaffee, Moffat, and Teller Counties.
- zebrata* Cresson, 1878 – See subspecies. This species also occurs in Bent, Boulder, Chaffee, Denver, Garfield, Las Animas, Otero, Ouray, Pueblo, Teller, and Weld Counties. This is the type species of the *zebrata* species subgroup.
- zebrata flavens* Timberlake, 1958 – Dolores and Moffat Counties.
- zebrata zebrata* Cresson, 1878 – Alamosa, Delta, Fremont, Larimer, and Moffat Counties.
- (*ventralis* group)
- kiowi* Griswold, 1988 – Bent, Denver, El Paso, Otero, Pueblo, Weld, and Yuma Counties.
- mentzeliae* Cockerell, 1896 – Conejos and Las Animas Counties.
- wootoniae* Cockerell, 1898 – Bent, Boulder, Denver, Pueblo, and Weld Counties.

(*zonalis* group)

dubia Cockerell, 1896 – See subspecies. The species also occurs in Garfield County.

dubia dubia Cockerell, 1896 – Pitkin County.

similis Timberlake, 1958 – See subspecies.

similis similis Timberlake, 1958 – Eagle and Moffat Counties.

stotleri Cockerell, 1896 – Eagle, Chaffee, Garfield, Grand, Gunnison, Jackson, Larimer, Mesa, Pitkin, and Rio Blanco Counties.

(*Pygoperdita*)

(*eriogoni* group)

eriogoni Cockerell, 1925 – Delta, Dolores, Elbert, Larimer, and Montrose Counties. This species is known only from Colorado. Cockerell (1925: 621-622) records the female type and an additional male from Ute, Montrose County on July 7, 1924 from flowers of *Eriogonum umbellatum* by Edwin Payson.

(*Xerophasma*)

bequaertiana Cockerell, 1951 – Bent and Las Animas Counties.

Melittidae

Melittinae

Macropidini

***Macropis* (References: Michener 1981; Snelling and Stage 1995)**

(*Macropis*)

nuda (Provancher, 1882) – Boulder County. The only UCMC specimen is a female from Boulder on July 13, 1922 at flowers of *Steironema ciliatum* [now *Lysimachia ciliata*].

Dasypodainae

Hesperapini

***Hesperapis* (References: Michener 1981; Michez et al. 2009; Stage 1966)**

(*Carinapis*)

carinata Stevens, 1919 – Alamosa County.

rodecki Cockerell, 1934 – Crowley, Morgan, Phillips, and Weld Counties.

Megachilidae

Megachilinae

Lithurgini

***Lithurgus* (References: Snelling 1983a)**

(*Lithurgopsis*)

apicalis Cresson, 1875 – Alamosa, Archuleta, Baca, Boulder, Chaffee, Conejos, Costilla, Crowley, Delta, Denver, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Huerfano, La Plata, Larimer, Las Animas, Logan, Mesa, Moffat, Montezuma, Montrose, Otero, Ouray, Pueblo, Saguache, Teller, and Weld Counties.

Dioxyini

***Dioxys* (References: Hurd 1958)**

aurifusca (Titus, 1901) – Costilla, Jefferson, La Plata, and Larimer Counties.

pomona Cockerell, 1910 – See subspecies. This species is also known from Denver County.

pomona pomona Cockerell, 1910 – Delta and Rio Blanco Counties.

rohweri Cockerell, 1908 – Grand County. This species is known only from Colorado.

Cockerell (1908b: 329-330) records the male type from Troublesome, 7,345 ft. on June 9, 1908 by S.A. Rohwer.

Anthidiini

***Anthidiellum* (References: Schwarz 1926b; Urban 2001)**

(Loyolanthidium)

notatum (Latreille, 1809) – See subspecies. This species is also known from Bent, Boulder, Jefferson, Moffat, and Montrose Counties.

notatum gilense (Cockerell, 1897) – El Paso County.

notatum robertsoni (Cockerell, 1904) – Garfield and Mesa Counties.

***Anthidium* (References: Gibbs and Sheffield 2009; Grigarick and Stange 1968; Hoebeke and Wheeler 1999; Schwarz 1927a, 1927b)**

(Anthidium)

atripes Cresson, 1879 – Mesa County.

clypeodentatum Swenk, 1914 – Boulder, Jefferson, Larimer, and Teller Counties.

emarginatum (Say, 1824) – Boulder, Douglas, Fremont, Gunnison, Larimer, and Weld Counties.

jocosum Cresson, 1878 – Colorado. Although “Colorado” is the reported type locality for this species (Cresson 1878a: 111), no subsequent records corroborate its occurrence in the state or from biogeographically similar areas of adjacent states. Confirmed records of this species, as presently understood, place this species only as far north as southwestern Utah and southern Nevada (Gonzalez and Griswold, in prep.) The type specimen was examined by V.H. Gonzalez in 2010 and found to match the current concept of this species, so the identity of the species is not in question, but the possibility of an erroneous type locality due to mislabeling or some other cause must be considered.

maculosum Cresson, 1878 – Fremont and Huerfano Counties.

manicatum (Linnaeus, 1758) – Boulder, Jefferson, and El Paso Counties. This is a non-native species in North America (Gibbs and Sheffield 2009). The earliest documented Colorado record we have located for this species is a male UCMC specimen collected in the city of Boulder on September 29, 2000.

montivagum Cresson, 1878 – Colorado.

mormonum Cresson, 1878 – Alamosa, Archuleta, Boulder, Costilla, Garfield, Jefferson, Larimer, Mesa, Montezuma, Montrose, and Teller Counties.

placitum Cresson, 1879 – Bent, Crowley, Delta, Larimer, Moffat, Montezuma, and Saguache Counties.

porterae Cockerell, 1900 – Arapahoe, Archuleta, Baca, Bent, Boulder, Chaffee, Crowley, Custer, Denver, El Paso, Elbert, Fremont, Huerfano, Jefferson, Kiowa, Kit Carson, Larimer, Las Animas, Montezuma, Morgan, Otero, Prowers, Pueblo, Teller, Weld, and Yuma Counties.

rodecki Schwarz, 1934 – Alamosa, Saguache, and Weld Counties.

tenuiflorae Cockerell, 1907 – Boulder, Chaffee, Conejos, Costilla, Custer, Denver, Dolores, Elbert, Gilpin, Gunnison, Huerfano, Jackson, Jefferson, Larimer, Mesa, Mineral, Moffat, Montezuma, Montrose, Park, Routt, San Miguel, and Teller Counties.

(Callanthidium)

formosum Cresson, 1878 – Boulder, Denver, Eagle, Huerfano, Jackson, Jefferson, Larimer, Mesa, Rio Blanco, and Saguache Counties.

(Proanthidium)

oblongatum (Illiger, 1806) – Boulder, Denver, and Jefferson Counties. This is new for Colorado. The first Colorado records for this non-native species were posted on Bugguide at <http://bugguide.net/node/view/334074> and <http://bugguide.net/node/view/334073>, photographed in Arvada on June 23, 2009 by Diane Wilson. Since then a few UCMC specimens have been collected in Colorado’s Front Range. These include a female taken in Denver on June 19, 2010 at *Sedum* by D.M. Wilson determined by VLS and a short series of males and females from Longmont on June 16, 2011 at *Melilotus officinalis* collected and determined by VLS.

***Dianthidium* (References: Grigarick and Stange 1968; Griswold and Michener 1988; Schwarz 1926b; Timberlake 1943a)**

(*Adanthidium*)

arizonicum Rohwer, 1916 – Montezuma County.

(*Dianthidium*)

concinnum (Cresson, 1872) – Boulder and Larimer Counties.

cressonii (Dalla Torre, 1896) – Boulder, Elbert, Pitkin, Summit, Teller, and Weld Counties.

curvatum (Smith, 1854) – See subspecies.

curvatum sayi Cockerell, 1907 – Baca, Bent, Boulder, Cheyenne, Crowley, Denver, El Paso, Elbert, Huerfano, Kit Carson, Larimer, Las Animas, Otero, Prowers, Sedgwick, and Weld Counties.

heterulkei Schwarz, 1940 – See subspecies.

heterulkei fraternum Timberlake, 1943 – Ouray County. This is new for Colorado based a UCRC specimen collected from Ouray on August 27, 1963 and confirmed by D. Yanega.

parvum (Cresson, 1878) – See subspecies.

parvum parvum (Cresson, 1878) – Boulder, Denver, Elbert, Garfield, Larimer, Mesa, Montezuma, Pitkin, Rio Blanco, and Teller Counties.

puadicum (Cresson, 1879) – See subspecies.

puadicum puadicum (Cresson, 1879) – Archuleta, Boulder, Chaffee, Douglas, Elbert, Gilpin, Gunnison, and Larimer Counties.

subparvum Swenk, 1914 – Boulder, Jefferson, and Rio Blanco Counties.

ulkei (Cresson, 1878) – See subspecies.

ulkei ulkei (Cresson, 1878) – Boulder, Elbert, Garfield, Larimer, Mesa, Montezuma, Pitkin, Rio Blanco, Saguache, and Teller Counties.

***Paranthidium* (References: Schwarz 1926b)**

(*Paranthidium*)

jugatorium (Say, 1824) – See subspecies.

jugatorium perpictum (Cockerell, 1898) – Boulder, Costilla, Douglas, Elbert, Fremont, Jefferson, La Plata, Larimer, Pitkin, and Rio Blanco Counties.

***Stelis* (References: Parker and Bohart 1979; Thorp 1966)**

(*Dolichostelis*)

rudbeckiarum Cockerell, 1904 – Boulder, El Paso, and Jefferson Counties. This is new for Colorado. The Jefferson County record is based on a photograph by Diane Wilson taken in Arvada on August 4, 2009 and posted at <http://bugguide.net/node/view/325313/bgimage>.

(*Stelis*)

callura Cockerell, 1925 – Boulder, Larimer, and Montrose Counties.

carnifex Cockerell, 1911 – Conejos County.

coarctatus Crawford, 1916 – Boulder County.

crassiceps Cockerell, 1926 – Colorado.

cusackae (Cockerell, 1910) – Colorado plus the Wet Mountain Valley.

elegans Cresson, 1864 – Boulder, Chaffee, Elbert, Gilpin, Gunnison, Jackson, Larimer, Mineral, Routt, and Teller Counties.

foederalis Smith, 1854 – Boulder, Clear Creek, Fremont, Gunnison, Jackson, Larimer, Moffat, Routt, and Teller Counties.

lateralis Cresson, 1864 – Boulder, Elbert, Fremont, and Huerfano Counties.

melanotricha (Cockerell, 1925) – Boulder County. This species is known only from Colorado. Cockerell (1925: 626) records the female type from the city of Boulder on May 17, 1925 by C.H. Hicks.

montana Cresson, 1864 – Archuleta, Boulder, Clear Creek, Conejos, Costilla, Eagle, El Paso, Gilpin, Gunnison, Hinsdale, Jackson, La Plata, Lake, Larimer, Mesa, Park, and Teller Counties.

monticola Cresson, 1878 – Colorado. Cresson records the type locality as Colorado and the collector as Ridings. Because Ridings collecting trip took him to Boulder County, that is likely where this specimen was collected; see section on James Ridings. Cockerell (1906c: 445) records this species, as *Chelynia monticola*, from Florissant (Teller County), however we were unable to locate any specimens that confirms this locality.

nitida Cresson, 1878 – Clear Creek, Grand, and Gunnison Counties.

pavonina (Cockerell, 1908) – Archuleta, Boulder, Clear Creek, Delta, Gilpin, Gunnison, Jackson, Mesa, and Rio Blanco Counties.

permaculata Cockerell, 1898 – Boulder County.

pulchra Crawford, 1902 – Gilpin County. Cockerell (1907b: 249) records this species, in the genus *Chelynia* and noted its variety as occurring in the city of Boulder. At the time of this writing, no Boulder or Boulder County specimens of this species have been located.

rubi Cockerell, 1898 – Larimer? County. There is an AMNH specimen from Longs Peak collected by F.E. Lutz and determined by H.F. Schwarz and confirmed by F.D. Parker. Although Longs Peak is actually in Boulder County, the majority of Longs Peak Trail is in Larimer County.

seneciophila Cockerell, 1908 – Teller County.

subcaerulea Cresson, 1878 – Boulder, Denver, El Paso, Gunnison, Mineral, Moffat, and Rio Blanco Counties.

submarginata Cresson, 1878 – Boulder, Gunnison, Jackson, Larimer, and San Miguel Counties.

***Trachusa* (References: Brooks and Griswold 1988; Schwarz 1926a)**

(*Heteranthidium*)

(*occidentalis* group)

occidentalis (Cresson, 1868) – Boulder, Custer, Elbert, Gilpin, Larimer, and Montezuma Counties.

(*zebrata* group)

zebrata (Cresson, 1872) – Baca, Boulder, Crowley, Larimer, Otero, Prowers, Weld, and Yuma Counties.

Osmiini

***Ashmeadiella* (References: Hurd et al. 1980, Hurd and Michener 1955; Michener 1939a)**

(*Arogochila*)

lutzi (Cockerell, 1930) – Mesa and Montezuma Counties.

(*Ashmeadiella*)

aridula Cockerell, 1910 – See subspecies.

aridula aridula Cockerell, 1910 – Garfield, Montrose, and Routt Counties.

bucconis (Say, 1837) – See subspecies. This species also occurs in Douglas, Jefferson, Mesa, Montezuma, and Montrose Counties.

bucconis bucconis (Say, 1837) – Moffat County.

bucconis denticulata Cresson, 1878 – Boulder, Costilla, Delta, Dolores, El Paso, Fremont, Garfield, Larimer, Las Animas, Moffat, Pueblo, and Rio Blanco Counties.

cactorum (Cockerell, 1897) – See subspecies.

cactorum cactorum (Cockerell, 1897) – Boulder, Delta, Larimer, Mesa, Saguache, and Teller Counties.

californica (Ashmead, 1897) – See subspecies.

californica florissantensis Michener, 1936 – Alamosa, Boulder, Custer, El Paso, Garfield, Grand, Huerfano, Larimer, Mesa, Ouray, Rio Blanco, Routt, and Teller Counties.

gillettei Titus, 1904 – See subspecies.

gillettei gillettei Titus, 1904 – Boulder, Costilla, Delta, Jackson, Larimer, Logan, Mesa, Moffat, Montrose, Morgan, Phillips, Saguache, and Weld Counties.

opuntiae (Cockerell, 1897) – Boulder, Delta, Fremont, Huerfano, Mesa, and Saguache Counties.

pronitens (Cockerell, 1906) – Boulder, Costilla, Custer, Gilpin, Gunnison, Jackson, Larimer, and Teller Counties.

prosopidis (Cockerell, 1897) – Colorado.

***Atoposmia* (References: Hurd and Michener 1955; Michener 1943)**

(*Atoposmia*)

abjecta (Cresson, 1878) – See subspecies.

abjecta abjecta (Cresson, 1878) – Boulder, Chaffee, Eagle, Garfield, Grand, Gunnison, Huerfano, Larimer, Moffat, Montezuma, Park, Routt, and Teller Counties.

anthodyta (Michener, 1943) – See subspecies.

anthodyta anthodyta (Michener, 1943) – Colorado.

elongata (Michener, 1936) – Boulder, El Paso, Fremont, Garfield, Grand, and Park Counties.

aff. *triodonta* (Cockerell, 1935) – Eagle County.

(*Hexosmia*)

copelandica (Cockerell, 1908) – See subspecies.

copelandica copelandica (Cockerell, 1908) – Boulder, Delta, Gilpin, and Larimer Counties.

***Chelostoma* (References: Michener 1938b, 1938c)**

(*Prochelostoma*)

philadelphia (Robertson, 1891) – Boulder County. This is new for Colorado. Neither the identity, determined by VLS and confirmed by JSA, nor the provenance of the single male specimen collected on the University of Colorado campus on 13 June 2002 at flowers of *Philadelphus* by VLS are in doubt, however, the establishment of this bee in Colorado remains to be demonstrated. Additional collecting on horticultural plantings of *Philadelphus* in the Front Range should be undertaken, as well as collecting at populations of the native *Philadelphus microphyllus* Gray in Colorado.

***Heriades* (References: Hurd and Michener 1955; Michener 1938a)**

(*Neotrypetes*)

carinatus Cresson, 1864 – Boulder, Denver, Eagle, Garfield, Jefferson, La Plata, Larimer, Mesa, Moffat, Montezuma, Prowers, Routt, Saguache, and Weld Counties.

cressoni Michener, 1938 – Boulder, Chaffee, El Paso, Garfield, La Plata, Larimer, Ouray, and Pitkin Counties.

gracilior Cockerell, 1897 – Archuleta and Montezuma Counties. Cockerell (1907b: 253) records this species from the city of Boulder, however no specimens have been located from anywhere in Boulder County at the time of this writing.

timberlakei Michener, 1938 – Fremont, Garfield, Mesa, and Montezuma Counties.

variolosus (Cresson, 1872) – See subspecies.

variolosus variolosus (Cresson, 1872) – Bent, Boulder, Jefferson, Larimer, Mesa, Pitkin, Pueblo, Saguache, Weld, and Yuma Counties.

***Hoplitis* (References: Hurd and Michener 1955; Michener 1938c, 1947)**

(*Alcidamea*)

(*producta* group)

pilosifrons (Cresson, 1864) – Boulder, El Paso, Huerfano, Logan, Sedgwick, Weld, and Yuma Counties.

producta (Cresson, 1864) – See subspecies. This species also occurs in Clear Creek, Delta, Eagle, El Paso, Elbert, Fremont, Grand, Mesa, Montrose, Teller, and Weld Counties. Michener (1947: 289) concluded that *H. p. producta* “ranges westward to the foot of the Rocky Mountains, but is replaced in the mountains by the subspecies *interior*.” Specimens from Florissant and Eldora were considered intermediate between *H. p. producta* and *H. p. interior*.

producta interior Michener, 1947 – Boulder, Chaffee, Dolores, Garfield, Gunnison, Huerfano, Lake, Larimer, Moffat, Ouray, Park, and Saguache Counties.

- producta producta* (Cresson, 1864) – Boulder County.
 (*truncata* group)
truncata (Cresson, 1878) – See subspecies. This species also occurs in Boulder County.
truncata mescalerium Cockerell, 1910 – Elbert and Fremont Counties.
truncata truncata (Cresson, 1878) – Larimer County.
- (*Cyrtosmia*)
hypocrita (Cockerell, 1906) – Boulder, Gilpin, La Plata, and Larimer Counties.
- (*Formicapis*)
robusta (Nylander, 1848) – Boulder, Chaffee, Delta, Eagle, El Paso, Gunnison, Jackson, La Plata, Lake, Larimer, Mesa, Montezuma, Ouray, Pitkin, Rio Grande, San Miguel, and Summit Counties.
- (*Monumetha*)
albifrons (Kirby, 1837) – See subspecies.
albifrons argentifrons (Cresson, 1864) – Alamosa, Archuleta, Boulder, Chaffee, Conejos, Costilla, Custer, Delta, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, Larimer, Mesa, Mineral, Moffat, Montrose, Ouray, Park, Pitkin, Rio Blanco, Routt, Saguache, San Miguel, and Teller Counties.
fulgida (Cresson, 1864) – See subspecies.
fulgida fulgida (Cresson, 1864) – Archuleta, Boulder, Clear Creek, Conejos, Custer, Delta, Dolores, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Las Animas, Mesa, Mineral, Montezuma, Ouray, Park, Pitkin, Routt, San Juan, San Miguel, Summit, and Teller Counties plus the South Fork of the Rio Grande River.
spoliata (Provancher, 1888) [= replacement name for *Hoplitis cylindrica* (Cresson)]; as cited in Michener (2000)] – Boulder County.
- Osmia* (References: Cane et al. 2007; Cooper 1993; Cripps and Rust 1985; Michener 1949, 1957; Rightmyer et al. 2010; Rust 1974; Rust and Bohart 1986; Sandhouse 1939; Sinha and Michener 1958; Snelling 1967; White 1952)** Note: information on species listed as new for Colorado, not given in full here, is based on specimens identified by TG or M. Rightmyer in preparation of a revision of North American *Osmia*.
- (*Acanthosmioides*)
calcarata White, 1952 – Colorado.
dakotensis Michener, 1937 – Boulder, El Paso, Larimer, Ouray, and Pueblo Counties.
giffardi Sandhouse, 1939 – Colorado.
giliarum Cockerell, 1906 – Boulder, Chaffee, Costilla, Douglas, Eagle, Elbert, Gilpin, Grand, Hinsdale, Huerfano, Jackson, La Plata, Larimer, Mesa, Park, Pitkin, Teller, and Weld Counties.
integra Cresson, 1878 – Archuleta, Bent, Custer, El Paso, Gilpin, Larimer, Las Animas, Moffat, Montezuma, Montrose, Park, Prowers, Teller, and Weld Counties. Cockerell (1907b: 251) records *Osmia novomexicana* Cockerell, a junior synonym of *O. integra*, as occurring in the city of Boulder. Although this species is documented from much of Colorado including the northern Front Range, no Boulder County specimens have been located as of this writing.
kenoyeri Cockerell, 1915 – Boulder and Gilpin Counties.
longula Cresson, 1864 – Boulder, Custer, Delta, Douglas, Eagle, Elbert, Gilpin, Grand, Jackson, Jefferson, Larimer, Mesa, Montezuma, Montrose, Park, Routt, and Teller Counties.
nifoata Cockerell, 1909 – Archuleta, Boulder, Douglas, Garfield, Grand, Gunnison, Jackson, La Plata, Larimer, Mesa, Montezuma, Rio Blanco, Routt, and San Miguel Counties.
nigrifrons Cresson, 1878 – Archuleta, Boulder, Chaffee, Delta, El Paso, Garfield, Gilpin, Grand, Jefferson, Larimer, Las Animas, Mesa, Moffat, Montrose, Park, San Miguel, and Teller Counties.
nigrobarbata Cockerell, 1916 – Colorado.

physariae Cockerell, 1907 – Archuleta, Boulder, Delta, Douglas, Grand, Gunnison, Huerfano, Jackson, Larimer, and Teller Counties.

sladeni Sandhouse, 1925 – Chaffee, Jackson, and Routt Counties. This is new for Colorado.

The Chaffee county record is based on a KSEM specimen determined by J.R. White.

unca Michener, 1937 – Boulder, Conejos, El Paso, Huerfano, Jefferson, Larimer, Montezuma, and Weld Counties.

(*Cephalosmia*)

californica Cresson, 1864 – Archuleta, Boulder, Elbert, Garfield, Grand, Hinsdale, Larimer, Mesa, Moffat, and Routt Counties.

grinnelli Cockerell, 1910 – Boulder, Garfield, and Mesa Counties.

marginipennis Cresson, 1878 – Boulder, El Paso, and Larimer Counties.

montana Cresson, 1864 – See subspecies.

montana montana Cresson, 1864 – Boulder, Chaffee, El Paso, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Larimer, Mesa, Mineral, Montezuma, Park, Routt, Saguache, San Miguel, Teller, Weld, and Yuma Counties.

subaustralis Cockerell, 1900 – Boulder, Chaffee, Clear Creek, Conejos, Delta, Eagle, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Jackson, Jefferson, La Plata, Larimer, Mesa, Montrose, Park, Saguache, San Juan, and Teller Counties.

(*Diceratosmia*)

subfasciata Cresson, 1872 – Baca County. This is new for Colorado. Although the range map in Hurd and Michener (1955: map 112) shows this species as potentially occurring in extreme southeastern Colorado, they cite no specific Colorado localities. Specimens have now been located by TG that document this species in Colorado.

(*Helicosmia*)

coloradensis Cresson, 1878 – Alamosa, Archuleta, Baca, Boulder, Chaffee, Custer, El Paso, Garfield, Gilpin, Grand, Gunnison, Jackson, La Plata, Larimer, Mesa, Montezuma, Rio Blanco, Saguache, San Juan, and Teller Counties.

texana Cresson, 1872 – Adams, Boulder, Dolores, El Paso, Garfield, Gunnison, Jefferson, Larimer, Mesa, Moffat, and Teller Counties.

(*Melanosmia*)

albolateralis Cockerell, 1906 – Boulder, Delta, Eagle, Fremont, Gilpin, Grand, Gunnison, Huerfano, Jackson, La Plata, Lake, Larimer, Mesa, Mineral, Moffat, Routt, Saguache, San Miguel, and Teller Counties.

albolateralis albolateralis Cockerell, 1906 – The expected subspecies for Colorado.

atrocyanea Cockerell, 1897 – See subspecies.

atrocyanea atrocyanea Cockerell, 1897 – Archuleta, Boulder, Garfield, Grand, Gunnison, Huerfano, Larimer, Mesa, Montrose, Routt, and San Miguel Counties.

austromaritima Michener, 1936 – Boulder, La Plata, and Mesa Counties.

bella Cresson, 1878 – Alamosa, Boulder, Eagle, El Paso, Garfield, Gunnison, Larimer, Mesa, Montrose, and Teller Counties.

brevis Cresson, 1864 – Alamosa, Archuleta, Boulder, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, Larimer, Mesa, Moffat, Montezuma, Routt, Teller, and Weld Counties.

bruneri Cockerell, 1897 – Alamosa, Archuleta, Boulder, Chaffee, Conejos, Delta, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Grand, Gunnison, Jefferson, Larimer, Mesa, Montezuma, Teller, and Weld Counties.

bucephala Cresson, 1864 – Boulder, Conejos, Costilla, Custer, Delta, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, Larimer, Mesa, Mineral, Moffat, Montezuma, Montrose, Park, Rio Grande, Routt, Saguache, and San Juan Counties.

cahuilla Cooper, 1993 – Colorado.

calla Cockerell, 1897 – Boulder, Eagle, Garfield, Grand, Mesa, Montrose, and Rio Blanco Counties.

caulicola Cockerell, 1934 – Boulder, Douglas, Elbert, and Routt Counties.
cobaltina Cresson, 1878 – Baca, Douglas, El Paso, Garfield, Grand, Hinsdale, Jefferson, Larimer, Mesa, Mineral, and Ouray Counties.
cockerelli Sandhouse, 1939 – Alamosa, Boulder, El Paso, Larimer, Las Animas, Mesa, Pueblo, and Weld Counties.
cordata Robertson, 1902 – Boulder, El Paso, Garfield, Jefferson, Kiowa, Larimer, Mesa, and Pueblo Counties.
crassa Rust and Bohart, 1986 – Garfield County.
cyanella Cockerell, 1897 – Archuleta, Boulder, Douglas, Larimer, Mesa, Montezuma, Montrose, and Routt Counties.
cyaneonitens Cockerell, 1906 – Boulder, Douglas, El Paso, Garfield, Grand, Gunnison, Jefferson, Phillips, Teller, and Weld Counties.
cyanopoda Cockerell, 1916 – La Plata County. This is new for Colorado.
densa Cresson, 1864 – Boulder, Fremont, Larimer, Montrose, and Teller Counties plus Pikes Peak.
distincta Cresson, 1864 – Colorado.
ednae Cockerell, 1907 – Archuleta, Boulder, Costilla, Delta, Eagle, Garfield, Grand, Gunnison, Jefferson, Larimer, Mesa, Moffat, Pitkin, Routt, San Miguel, and Teller Counties.
enixa Sandhouse, 1924 – Colorado.
gaudiosa Cockerell, 1907 – Archuleta, Boulder, Douglas, El Paso, Fremont, Garfield, Huerfano, Las Animas, Mesa, Moffat, and Montrose Counties.
grindeliae Cockerell, 1910 – Boulder, Garfield, Grand, Gunnison, Larimer, Routt, and Weld Counties.
hendersoni Cockerell, 1907 – Arapahoe, Boulder, Elbert, Gilpin, and Mineral Counties.
inermis (Zetterstedt, 1838) – Boulder, Grand, Gunnison, Lake, Larimer, Mesa, Mineral, Routt, and Summit Counties.
inurbana Cresson, 1878 – Boulder and Routt Counties.
iridis Cockerell and Titus, 1902 – Archuleta, Boulder, Garfield, Gunnison, and Jackson Counties.
juxta Cresson, 1864 – See subspecies. The species also occurs in Alamosa, Conejos, Douglas, Fremont, Gilpin, La Plata, and Teller Counties.
juxta juxta Cresson, 1864 – Boulder, Elbert, and Larimer Counties.
kincaidii Cockerell, 1897 – Archuleta, Boulder, Garfield, Grand, and Moffat Counties.
malina Cockerell, 1909 – Boulder, El Paso, and Jefferson Counties.
mertensiae Cockerell, 1907 – Boulder, El Paso, Jackson, Larimer, and Teller Counties.
nanula Cockerell, 1897 – Boulder, Delta, Douglas, Fremont, Gilpin, Gunnison, La Plata, Larimer, and Las Animas Counties.
pagosa Sandhouse, 1939 – Archuleta, Douglas, and Jefferson Counties.
paradisica Sandhouse, 1924 – Boulder, Delta, Fremont, Gunnison, Jackson, and Routt Counties. This is new for Colorado based, in part, on UCMC specimens determined by TG.
pentstemonis Cockerell, 1906 – Boulder, Delta, Douglas, Fremont, Garfield, Gilpin, Gunnison, Huerfano, Jackson, Larimer, Mesa, Mineral, Routt, and Teller Counties.
pikei Cockerell, 1907 – Boulder, Gunnison, Huerfano, Jackson, Jefferson, Mesa, and Teller Counties.
pingreeana Michener, 1937 – Baca, Costilla, Jackson, Larimer, Mesa, Montrose, and Teller Counties. This species is known only from Colorado. Michener (1937b: 408-409) records the holotype female from Pingree Park on August 22, 1935 by C.D. Michener.
proxima Cresson, 1864 – Boulder, Douglas, Eagle, Fremont, Grand, Gunnison, La Plata, Larimer, and Mesa Counties.
pulsatillae Cockerell, 1907 – Boulder and Moffat Counties.
pusilla Cresson, 1864 – Boulder, El Paso, Grand, Mesa, Mineral, and Rio Grande Counties.
raritatis Michener, 1957 – Jackson and Mesa Counties.

rawlinsi Sandhouse, 1939 – Eagle, Garfield, Moffat, Montezuma, and Rio Blanco Counties.

This is new for Colorado. The Moffat County record is based on one female specimen housed at CSUC from Juniper Hot Springs, Co. Rts. 53 and 77 on June 21, 1992 by Kondratieff and Kippenhan and determined by TG.

sanrafaelae Parker, 1985 – Eagle, Garfield, and Montezuma Counties. This is new for Colorado.

sculleni Sandhouse, 1939 – Boulder, Chaffee, Gunnison, Jackson, Jefferson, La Plata, Larimer, Park, Routt, San Miguel, and Teller Counties plus Pikes Peak.

simillima Smith, 1853 – Archuleta, Boulder, Chaffee, Conejos, Delta, Eagle, Garfield, Gunnison, Jackson, Jefferson, La Plata, Lake, Larimer, Mesa, Montrose, Pitkin, Routt, Rio Grande, Summit, and Teller Counties.

tanneri Sandhouse, 1939 – Park County. This is new for Colorado.

tersula Cockerell, 1912 – Boulder, Gunnison, and La Plata Counties.

trevoris Cockerell, 1897 – Boulder, Douglas, Elbert, Garfield, Grand, Gunnison, Jackson, Jefferson, Larimer, Mesa, Moffat, Montezuma, Montrose, Park, San Miguel, and Teller Counties.

tristella Cockerell, 1897 – See subspecies. The species also occurs in Gunnison, Jackson, La Plata, Larimer, and Mineral Counties.

tristella tristella Cockerell, 1897 – Colorado.

tristella cyanosoma Cockerell, 1916 – Boulder County.

universitatis Cockerell, 1907 – Boulder County.

(*Mystacosmia*)

nemoris Sandhouse, 1924 – Boulder, El Paso, Garfield, Mesa, and Pueblo Counties. This is new for Colorado.

(*Osmia*)

lignaria Say, 1837 – See subspecies.

lignaria propinqua Say, 1837 – Alamosa, Archuleta, Baca, Boulder, Clear Creek, Conejos, Costilla, Custer, Delta, Denver, Dolores, Douglas, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Jackson, Jefferson, La Plata, Larimer, Mesa, Moffat, Montrose, Ouray, Park, Routt, and Teller Counties.

ribifloris Cockerell, 1900 – See subspecies.

ribifloris ribifloris Cockerell, 1900 – Archuleta, Baca, Boulder, Conejos, Delta, Jefferson, and Larimer Counties.

(*Trichinosmia*)

latisulcata Michener, 1936 – Garfield and Mesa Counties.

(unassigned)

angustipes Cockerell, 1933 – Boulder County. This species is known only from Colorado.

Cockerell (1933b: 158) records the male type from “Boulder, April 21, 1833 (H.W.

Campbell).” Surely, this should read 1933 as other specimens cited in this same publication were collected by H.W. Campbell in 1933.

Megachilini

***Coelioxys* (References: Baker 1971, 1975; Mitchell 1973)**

(*Boreocoelioxys*)

banksi Crawford, 1914 – Boulder, Elbert, and Fremont Counties.

funeraria Smith, 1854 – Boulder, Gunnison, and San Miguel Counties.

insita Cresson, 1872 – Boulder County.

moesta Cresson, 1864 – Boulder, Fremont, Gunnison, and Larimer Counties.

octodentata Say, 1824 – Boulder, Delta, El Paso, Elbert, La Plata, Montrose, Prowers, and Yuma Counties.

porterae Cockerell, 1900 – Boulder, Fremont, Garfield, Jefferson, Larimer, Montrose, and Pitkin Counties.

rufitarsis Smith, 1854 – Boulder, Delta, Denver, Mesa, Moffat, Montrose, Pueblo, and Weld Counties.

sayi Robertson, 1897 – Boulder County.

(*Coelioxys*)

sodalis Cresson, 1878 – Boulder, Chaffee, Custer, Delta, Douglas, Fremont, Gilpin, Grand, Gunnison, Jackson, Jefferson, Lake, Larimer, Mesa, Montrose, Ouray, and Park Counties.

(*Cyrtocoelioxys*)

deani Cockerell, 1909 – Boulder County.

gilensis Cockerell, 1896 – Delta County.

(*Synocoelioxys*)

alternata Say, 1837 – Boulder and Larimer Counties.

apacheorum Cockerell, 1900 – Boulder, Delta, Fremont, and Rio Blanco Counties.

erysimi Cockerell, 1912 – northern Front Range and western Colorado.

hunteri Crawford, 1914 – northern Front Range of Colorado.

(*Xerocoelioxys*)

edita Cresson, 1872 – Boulder, Clear Creek, Crowley, El Paso, Elbert, Fremont, Huerfano, Mesa, Otero, Prowers, Pueblo, Rio Blanco, and Yuma Counties.

grindeliae Cockerell, 1900 – Boulder, Fremont, Pitkin, and Rio Blanco Counties.

mesae Cockerell, 1921 – Boulder County.

***Megachile* (References: Gonzalez and Griswold 2007; Mitchell 1934, 1935a, 1935b, 1936, 1937a, 1937b, 1937c, 1937d, 1980; Sheffield and Westby 2007; Snelling 1990)**

(*Argyropile*)

parallela Smith, 1853 – Adams, Baca, Bent, Boulder, Cheyenne, Clear Creek, Crowley, Delta, Denver, El Paso, Elbert, Fremont, Garfield, Jefferson, Kit Carson, La Plata, Larimer, Las Animas, Lincoln, Logan, Mesa, Moffat, Montezuma, Montrose, Otero, Phillips, Prowers, Pueblo, Rio Blanco, Sedgwick, Weld, and Yuma Counties.

townsendiana Cockerell, 1898 – Otero and Weld Counties.

(*Chelostomoides*)

(*exilis* group)

campanulae (Robertson, 1903) – El Paso and Fremont Counties.

exilis Cresson, 1872 – Crowley County.

exilis exilis Cresson, 1872 – The expected subspecies for Colorado.

subexilis Cockerell, 1908 – Boulder, Costilla, Denver, El Paso, Garfield, La Plata, Larimer, Mesa, and Moffat Counties.

(*rugifrons* group)

chilopsidis Cockerell, 1900 – Colorado.

odontostoma Cockerell, 1924 – Colorado.

(*occidentalis* group)

prosopidis Cockerell, 1900 – Mesa County. This is new for Colorado based on a single female UCMC specimen originally identified as *M. occidentalis* by T.B. Mitchell, however based on Snelling (1990) VLS has determined it to be *M. prosopidis*. A series of seven males accompany this female that was collected from Colorado National Monument, 4,660 ft. on June 14, 1963 at flowers of *Tamarix* by C.J. McCoy.

(*Eutricharaea*)

concinna Smith, 1879 – Otero and Yuma Counties. This is a non-native species accidentally introduced to the United States from the Old World. The Otero County record is from 1957 and based on a KSEM specimen determined by M.B. Mitchell. AMNH specimens from Yuma County date back to 1964.

rotundata (Fabricius, 1793) – Bent, Boulder, Denver, El Paso, Garfield, Larimer, Montrose, Morgan, Phillips, Pitkin, Weld, and Yuma Counties. This non-native (Old World) species was introduced into North America around World War II (Mitchell 1962: 122-123). The earliest records at UCMC for its occurrence in Colorado are from 1962 in the cities of

Boulder and Denver. This is the type species of subgenus *Neoeutricharaea* Rebmann, which is recognized as valid by certain Palearctic specialists.

(*Litomegachile*)

brevis Say, 1837 – See subspecies. The species also occurs in Adams, Bent, Cheyenne, Clear Creek, El Paso, Fremont, Jefferson, Las Animas, Logan, Mesa, Phillips, and Yuma Counties.

brevis brevis Say, 1837 – Baca, Boulder, Elbert, Kit Carson, Montezuma, and Prowers Counties.

brevis onobrychidis Cockerell, 1908 – Alamosa, Boulder, Delta, Elbert, Larimer, Moffat, Otero, and Weld Counties.

lippiae Cockerell, 1900 – Baca, Bent, Boulder, Delta, Denver, Eagle, El Paso, Fremont, La Plata, Larimer, Mesa, Moffat, Montrose, Prowers, and Rio Blanco Counties.

mendica Cresson, 1878 – See subspecies. The species also occurs in El Paso County.

mendica mendica Cresson, 1878 – Boulder and Denver Counties.

mendica snowi Mitchell, 1927 – Alamosa, Boulder, Delta, Elbert, Larimer, Otero, and Weld Counties.

texana Cresson, 1878 – Archuleta, Bent, Boulder, Delta, Denver, Eagle, Elbert, Garfield, Jackson, La Plata, Larimer, Mesa, Moffat, Montrose, Otero, Prowers, Pueblo, and Weld Counties.

(*Megachile*)

centuncularis (Linnaeus, 1758) – Boulder, Denver, Douglas, Jefferson, Larimer, and Routt Counties.

inermis Provancher, 1888 – Boulder, Costilla, Delta, El Paso, Gunnison, Larimer, Mesa, Mineral, Pitkin, Routt, San Juan, and San Miguel Counties.

montivaga Cresson, 1878 – Arapahoe, Archuleta, Boulder, Costilla, Custer, Denver, Douglas, El Paso, Elbert, Gilpin, Grand, Gunnison, Huerfano, Jefferson, Larimer, Las Animas, Logan, Montezuma, Park, Phillips, Pitkin, Prowers, Rio Grande, Teller, Weld, and Yuma Counties.

Note: *Megachile helianthi* Cockerell, 1908, described from Boulder County, has been treated as a poorly known species in the subgenus *Sayapis* (Mitchell 1937c: 200; Hurd 1979: 2070), but the holotype female in the AMNH, studied by JSA, proved to be a junior synonym of *Megachile montivaga*, **new synonymy**.

nivalis Friese, 1903 – Boulder and El Paso Counties plus Rocky Mountain National Park.

relativa Cresson, 1878 – Boulder, Chaffee, Clear Creek, Costilla, Delta, Eagle, El Paso, Elbert, Gilpin, Grand, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Park, Pitkin, Rio Grande, Routt, San Miguel, Summit, and Teller Counties.

(*Megachiloides*)

alamosana Mitchell, 1934 – Alamosa, Boulder, El Paso, and Larimer Counties.

anograe Cockerell, 1908 – Boulder, El Paso, Larimer, Park, and Teller Counties.

bruneri Mitchell, 1934 – Costilla, Larimer, and Ouray Counties.

casadae Cockerell, 1898 – Boulder, El Paso, Huerfano, Larimer, Las Animas, and Mesa Counties.

coloradensis Mitchell, 1936 – Boulder County.

fucata Mitchell, 1934 – Colorado.

hilata Mitchell, 1934 – Boulder, Fremont, Larimer, and Rio Blanco Counties.

hookeri Cockerell, 1915 – Colorado.

impartita Mitchell, 1934 – Colorado. (Type locality.)

latita Mitchell, 1934 – Moffat County.

legalis Cresson, 1879 – Gilpin and Saguache Counties.

manifesta Cresson, 1878 – Boulder, Chaffee, Denver, Douglas, El Paso, Jefferson, La Plata, Larimer, Las Animas, Montezuma, Routt, Teller, and Weld Counties.

micheneri Mitchell, 1936 – Larimer County.

mucorosa Cockerell, 1908 – Baca, Boulder, Clear Creek, Denver, and Larimer Counties.

- nelsoni* Mitchell, 1936 – Boulder County.
- nevadensis* Cresson, 1879 – Alamosa and Costilla Counties.
- oslari* Mitchell, 1934 – Denver County.
- pagosiana* Mitchell, 1934 – Archuleta County. This species is known only from Colorado. Mitchell (1934: 334) records the type female from Pagosa Springs, about 7,200 ft. during June 22-24, 1919.
- subanograe* Mitchell, 1934 – Mesa County. This is new for Colorado based on UCMC specimens. There is a series of seven males collected from Whitewater on May 18, 1963 at flowers of *Sphaeralcea coccinea* by C.J. McCoy and B. Vogel. On that same date and locality there were also one male and one female collected from *Astragalus*. One additional male was collected at Colorado National Monument, 4,500 ft. on May 16, 1963 from *Sphaeralcea parvifolia* by C.J. McCoy. All of these specimens were determined by T.B. Mitchell.
- subnigra* Cresson, 1879 – See subspecies and List of Problematic Taxa.
- subnigra subnigra* Cresson, 1879 – Archuleta County.
- toscata* Mitchell, 1934 – Boulder and Larimer Counties. This species is known only from Colorado. Mitchell (1934: 341-342) records the type female from Ft. Collins on September 7, 1903.
- umatillensis* (Mitchell, 1927) – Weld County.
- wheeleri* Mitchell, 1927 – Eagle, Lake, Mesa, Mineral, Pitkin, Rio Blanco, Routt, and Saguache Counties.
- (*Sayapis*)
- fidelis* Cresson, 1878 – Boulder, Costilla, El Paso, Fremont, Garfield, Larimer, Las Animas, Montezuma, Pitkin, and Teller Counties.
- inimica* Cresson, 1872 – See subspecies.
- inimica sayi* Cresson, 1878 – Boulder, Elbert, Jefferson, Mesa, Montezuma, Otero, and Pueblo Counties.
- mellitarsis* Cresson, 1878 – Boulder, Delta, Jefferson, Larimer, and Mesa Counties.
- newberryae* Cockerell, 1900 – Colorado.
- policaris* Say, 1831 – Baca County.
- pugnata* Say, 1837 – See subspecies and List of Problematic Taxa. This species also occurs in Delta, Gunnison, La Plata, Park, Routt, Saguache, and San Miguel Counties.
- pugnata pugnata* Say, 1837 – Boulder, Clear Creek, Costilla, Eagle, El Paso, Elbert, Garfield, Gilpin, Jefferson, Lake, Larimer, Mineral, Ouray, Pitkin, and Teller Counties.
- (*Xanthosarus*)
- agustini* Cockerell, 1905 – Archuleta, Boulder, Costilla, Douglas, Fremont, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Mesa, Montezuma, and Otero Counties.
- comata* Cresson, 1872 – Boulder, El Paso, Elbert, Larimer, and Teller Counties.
- dentitarsus* Sladen, 1919 – Boulder, Denver, Elbert, Larimer, Pueblo, Sedgwick, Teller, and Weld Counties.
- fortis* Cresson, 1872 – Boulder, Douglas, Jefferson, Las Animas, Logan, Weld, and Yuma Counties.
- frigida* Smith, 1853 – See subspecies.
- frigida frigida* Smith, 1853 – Bent, Boulder, Chaffee, Conejos, Costilla, Delta, Denver, Eagle, Fremont, Garfield, Gilpin, Grand, Gunnison, Jackson, La Plata, Lake, Larimer, Mesa, Mineral, Montezuma, Ouray, Park, Pitkin, Rio Blanco, Rio Grande, Summit, and Teller Counties.
- gemula* Cresson, 1878 – See subspecies. This species also occurs in Delta, Gilpin, Larimer, Montezuma, and Park Counties. Note: Specimens from Conejos, Custer, and Park Counties and from Seattle, Washington in the AMNH determined as *Megachile gemula fulvogemula* Mitchell by T.B. Mitchell are regarded by JSA as conspecific with *M. melanophaea* Smith

- based on both mandibular morphology and hair color. Thus, we question the validity of this taxon pending study of the holotype.
- gemula gemula* Cresson, 1878 – Boulder, Custer, Jefferson, Montrose, and Pitkin Counties.
- giliae* Cockerell, 1906 – Boulder, Chaffee, Fremont, Gilpin, Larimer, Park, and Teller Counties.
- innupta* Cockerell, 1915 – Boulder and Pueblo Counties. This species is known only from Colorado. Cockerell (1915: 534) records the female type from Pueblo on August 10, 1907 by G.M. Hite.
- latimanus* Say, 1823 – Alamosa, Boulder, Clear Creek, Costilla, Denver, Douglas, Eagle, El Paso, Elbert, Garfield, Jefferson, La Plata, Lake, Larimer, Mineral, Montezuma, Ouray, Park, Pitkin, Rio Blanco, Rio Grande, Routt, and Teller Counties.
- melanophaea* Smith, 1853 – See subspecies. This species also occurs in Conejos, Custer, Eagle, Garfield, Gilpin, Gunnison, Huerfano, Jefferson, La Plata, Montrose, Ouray, Pitkin, Saguache, and San Miguel Counties. Three subspecies, listed here, have been reliably reported in Colorado, more or less sympatrically. One additional subspecies has been reported in Colorado, however we question its status as a true member of the Colorado bee fauna; see List of Problematic Taxa. It is clear the taxonomy of this variable species requires further study. Also, see note above listed under *M. gemula fulvogemula*.
- melanophaea melanophaea* Smith, 1853 – Boulder, El Paso, Elbert, Lake, Larimer, Park, Routt, and Teller Counties.
- melanophaea rohweri* Cockerell, 1906 – Boulder, Chaffee, Larimer, and Teller Counties.
- melanophaea wootoni* Cockerell, 1898 – Clear Creek, Costilla, El Paso, Larimer, Las Animas, and Mineral Counties.
- perihirta* Cockerell, 1898 – Adams, Alamosa, Arapahoe, Archuleta, Boulder, Chaffee, Custer, Delta, Denver, Eagle, El Paso, Garfield, Gilpin, Grand, Gunnison, Jackson, La Plata, Lake, Larimer, Las Animas, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Pitkin, Pueblo, Rio Grande, Saguache, Teller, and Weld Counties.

Apidae

Xylocopinae

Xylocopini

***Xylocopa* (References: Hurd 1955, 1978; Hurd and Moure 1963; O'Brien and Hurd 1965)**

(Notoxylocopa)

tabaniformis Smith, 1854 – See subspecies.

tabaniformis androleuca Michener, 1940 – Mesa and Montrose Counties. This is new for Colorado based on specimens housed at CSUC as follows: one male from San Miguel R[iver] Pres[erve], SR 141, Mp 71 in Montrose County on July 14, 1994 by D. Leatherman and determined by Parks; one female from Colorado National Monument, Rimrock Road 0.7 miles south of Headquarters on May 23, 1997; one female from WCRC@FR [Western Colorado Research Center at Fruita] in Mesa County on July 13, 2001 from [yellow] J[apanese] B[ee] trap by R.W. Hammon; and two females from Palisade on June 18, 2004 from JB trap by M. Camper.

(Xylocopoides)

virginica (Linnaeus, 1771) – See subspecies.

virginica virginica (Linnaeus, 1771) – Boulder? and Jefferson Counties. This is new for Colorado. This bee was first documented for Colorado by a single female CSUC specimen collected in Longmont (Boulder County) on August 23, 1999 from a “picnic table from NJ”. Although it had appeared as though this conspicuous eastern U.S. species had not become established in Colorado from that accidental introduction, a new record has been documented at <http://bugguide.net/node/view/546075/bgimage> photographed by

Diane Wilson in Arvada (Jefferson County) on July 15, 2011 at *Monarda fistulosa* and this female specimen subsequently added to UCMC. It is unclear whether this is a separate introduction into Colorado's Front Range and also unclear whether a viable population has become established here or anywhere in the state.

Ceratinini

***Ceratina* (References: Daly 1973)**

(*Zadontomerus*)

(*dupla* group)

calcarata Robertson, 1900 – Arapahoe, Boulder, Larimer, and Sedgwick Counties plus southeastern Colorado.

(*nanula* group)

nanula Cockerell, 1897 – Archuleta, Boulder, Delta, Douglas, Eagle, El Paso, Garfield, Grand, Jackson, Jefferson, La Plata, Larimer, Mesa, Moffat, Montezuma, Montrose, Rio Blanco, and Weld Counties.

(*pacifica* group)

pacifica H.S. Smith, 1907 – Delta, Garfield, Mesa, and Moffat Counties.

(unplaced to group)

neomexicana Cockerell, 1901 – Adams, Alamosa, Archuleta, Boulder, Conejos, Delta, Douglas, Eagle, El Paso, Elbert, Fremont, Grand, Gunnison, Jackson, La Plata, Logan, Mesa, Moffat, Montezuma, Pueblo, Routt, Saguache, Teller, and Weld Counties.

Nomadinae

Neolarrini

***Neolarra* (References: Linsley and Michener 1939; Michener 1939b; Shanks 1977)**

pruinosa Ashmead, 1890 – Boulder and Denver Counties.

verbesinae (Cockerell, 1895) – Colorado.

vigilans (Cockerell, 1895) – Larimer and Weld Counties.

Ammobatini

***Oreopasites* (References: Linsley 1941; Linsley and Michener 1939; Rozen 1992)**

(*Oreopasites*)

scituli Cockerell, 1906 – Chaffee and Park Counties.

Nomadini

***Nomada* (References: Alexander 1994; Alexander and Schwarz 1994; Broemeling 1988; Broemeling and Moalif 1988; Cockerell 1903, 1905; Droege et al. 2010; Evans 1972; Linsley and Michener 1939; Rodeck 1931, 1949; Snelling 1986)**

(*adducta* group) [= Subgenus *Pachynomada*, in part (atypical)]

adducta Cresson, 1878 – Colorado. (Type locality.)

(*erigeronis* group) [= Subgenera *Centrias* and *Nomadula*]

articulata Smith, 1854 – Boulder, Larimer, Morgan, and Weld Counties.

frieseana Cockerell, 1904 – Arapahoe, Boulder, Denver, El Paso, Elbert, Huerfano, and Larimer Counties. This species is known only from Colorado. Cockerell (1904: 28-29) records the female type from Prospect Lake, in Colorado Springs on May 22 by T. and W. Cockerell.

martinella Cockerell, 1903 – Larimer County. Cockerell (1907b: 248) records this species as occurring in the city of Boulder, however, at the time of this writing, no specimens of this species were located from anywhere in Boulder County.

rohweri Cockerell, 1906 – See subspecies. This species also occurs in Chaffee County. This species is known only from Colorado. Cockerell (1906c: 348-349) records the female types from east of Lake George on June 18 at flowers of *Senecio* by S.A. Rohwer

rohweri aureopilosa Swenk, 1913 – Colorado.

rohweri rohweri Cockerell, 1906 – Park and Teller Counties.

scita Cresson, 1878 – Alamosa, Arapahoe, Bent, Boulder, Delta, Denver, Elbert, Grand, Huerfano, Larimer, Las Animas, Mesa, Montezuma, Sedgwick, Teller, and Weld Counties.
semiscita Cockerell, 1904 – Boulder, Denver, El Paso, Elbert, Huerfano, and Jefferson Counties. This species is known only from Colorado. Cockerell (1904: 29) records the male type from Prospect Lake, Colorado Springs on May 22, 1904 at flowers of *Senecio* by T. and W. Cockerell.

(*roberjeotiana* group) [= Subgenus *Callinomada*]

snowii Cresson, 1878 – Boulder, Fremont, Larimer, Moffat, and Montezuma Counties.

(*ruficornis* group) [= Subgenera *Gnathias*, *Heminomada*, *Nomada*, and *Phor*]

accepta Cresson, 1878 – Boulder, El Paso, and Larimer Counties.

agynia Cockerell, 1905 – Jefferson County. This species is known only from Colorado. Cockerell (1905: 81) records the male type from Golden in July by C.P. Gillette and “marked Colorado 2196”.

alpha Cockerell, 1905 – See subspecies. This species also occurs in Jefferson County. This species is known only from Colorado.

alpha alpha Cockerell, 1905 – Larimer County. Cockerell (1905: 84) records the female type from Ft. Collins on May 20, 1903 from flowers of *Capsella bursa-pastoris* by F.C. Bishopp.

alpha dialpha Cockerell, 1921 – Jackson County. Cockerell (1921b: 3) records two AMNH females, including the type, from Walden, about 8,300 ft. on the more mesophytic riverbottom among willows, cottonwood, *Iris*, etc. on June 17, 1920 by F.E. Lutz.

alpha paralpha Cockerell, 1921 – Jackson County. Cockerell (1921b: 3) records the female AMNH type from Walden, about 8,400 ft. among sagebrush on hillside on June 17, 1920 by F.E. Lutz.

bella Cresson, 1863 – See subspecies. Cockerell (1907b: 259) records a variety of this species from the city of Boulder, but we were unable to locate any specimens from Boulder County.

bella callura Cockerell, 1911 – Custer County

carinicauda Cockerell, 1921 – Mineral County. This species is known only from Colorado.

Cockerell (1921b: 7) records the female AMNH type from the South Fork of the Rio Grande at about 37°36'N, 106°43'W, about 5,800 ft. among *Pinus scopulorum*, *Pseudotsuga mucronata*, *Picea pungens*, etc. on June 17, 1919 by F.E. Lutz.

aff. *citrina* Cresson, 1878 – Larimer County.

civilis Cresson, 1878 – Boulder, Grand, and Teller Counties.

civilis civilis Cresson, 1878 – The expected subspecies for Colorado.

clarescens Cockerell, 1921 – Jackson County. This species is known only from Colorado.

Cockerell (1921b: 10) records the female AMNH type from Walden, about 8,300 ft. on the sagebrush hills near town on June 17, 1920 by F.E. Lutz.

collinsiana Cockerell, 1905 – Boulder, Larimer, and Routt Counties.

coloradella Cockerell, 1905 – Dolores and Larimer Counties. This species is known only from Colorado. Cockerell (1905: 83) records the male type from Ft. Collins on June 18, 1900 and a female “Colorado 633” from Dolores on June 18, 1892 by C.P. Gillette.

coloradensis Cockerell, 1903 – Boulder and Montrose Counties. This species is known only from Colorado. Cockerell (1903:603-604) lists the female type from “Colorado, bearing numbers 566 and 34; no further particulars known to me. One in Coll. of Acad. Nat. Sci. Phila. I suspect that it came from Prof. Gillette.”

concinula Cockerell, 1921 – Archuleta and La Plata Counties. This species is known only from Colorado. Cockerell (1921b: 6) records two females, including the AMNH type, from Electra Lake near Durango, about 8,400 ft. on June 29, 1919 by F.E. Lutz and two females from Pagosa Springs, about 7,400 ft. in U.S. forest reservation, San Juan valley on June 23, 1919 by F.E. Lutz.

crawfordi Cockerell, 1905 – See subspecies. This species also occurs in Boulder, Jefferson, Park, and Teller Counties.

crawfordi crawfordi Cockerell, 1905 – Larimer County.

cressonii Robertson, 1893 – El Paso County.

cressonii cressonii Robertson, 1893 – The expected subspecies for Colorado.

custeriana Cockerell, 1911 – Custer County. This species is known only from Colorado. Cockerell (1911a: 241-242) records the male USNM type No. 14023 from “West Cliff” by Cockerell.

cymbalariae Cockerell, 1906 – Park and Teller Counties. This species is known only from Colorado. Cockerell (1906c: 349) records the female AMNH type series from east of Lake George in June at flowers of *Halerpestes cymbalaria* by S.A. Rohwer.

depressa Cresson, 1863 – Boulder County.

dilucida Cresson, 1878 – Colorado. This species is known only from Colorado. Cresson (1878a: 80) records the female type from Colorado collected by H.K. Morrison.

ednae Cockerell, 1907 – Boulder County. This species is known only from Colorado. Cockerell (1907b: 537) records the male type from Boulder on the campus of the University of Colorado on April 10, 1907 at flowers of *Taraxacum taraxacum* by E. Baker.

elrodi Cockerell, 1903 – Boulder County.

erythraea Dalla Torre, 1896 – Colorado.

fontis Cockerell, 1910 – Larimer and Routt Counties.

fragilis Cresson, 1878 – See subspecies. This species occurs in Boulder and Larimer Counties.

fragilis fragilis Cresson, 1878 – Colorado. (Type locality.)

frankei Cockerell, 1929 – Montezuma County. This species is known only from Colorado. Cockerell (1929b: 443) records the male type from Mesa Verde National Park on June 22, 1929 by P.R. Franke.

gillettei Cockerell, 1905 – Jefferson County. This species is known only from Colorado. Cockerell (1905: 81) records the male type “marked Colorado 2198” from Golden on July 3 by C.P. Gillette.

leucozona Rodeck, 1931 – Boulder County. This species is known only from Colorado. Rodeck (1931: 4) records the male type from Boulder on April 14, 1931 at *Salix* by Pauline Lundy.

libata Cresson, 1878 – Boulder? and Denver Counties. This species is known only from Colorado. In his description of this species, Cresson (1878a: 80) records four specimens from Colorado collected by J. Ridings. These were most likely taken in Boulder County; see section on James Ridings.

luteoloides Robertson, 1895 – Boulder County. This is new for Colorado based on a UCMC specimen collected in the city of Boulder on April 22, 1930 by E.C. Nelson and determined by JSA.

luteopicta Cockerell, 1905 – Mesa County. This species is known only from Colorado. Cockerell (1905: 83) records two males and a female from Palisade on May 7, 1901 at apple blossoms by C.P. Gillette.

maculiventer Swenk, 1915 – Larimer County. This is new for Colorado based on a male UCMC specimen collected from Masonville on September 18, 1937 by M.T. James and determined by H.G. Rodeck.

morrisoni Cresson, 1878 – See subspecies. This species also occurs in Custer and Denver Counties.

morrisoni flagellaris Cockerell, 1903 – Rio Grande County.

morrisoni morrisoni Cresson, 1878 – Colorado.

munda Cresson, 1878 – Boulder County.

obliterata Cresson, 1863 – Colorado.

ornithica Cockerell, 1906 – Boulder and Teller Counties.

orophila Cockerell, 1921 – Jackson County.

aff. *ovata* (Robertson, 1903) – Boulder County.

packardiella Cockerell, 1906 – Boulder, Chaffee, and Park Counties.

pallidella Cockerell, 1905 – Montrose County. This species is known only from Colorado. Cockerell (1905: 82) records the male type “marked Colorado 566” from Montrose on June 24, 1902 by C.P. Gillette.

parata Cresson, 1878 – Colorado. (Type locality.)

perivincta Cockerell, 1905 – See subspecies. This species is known only from Colorado.

perivincta perivincta Cockerell, 1905 – Colorado. Cockerell (1905: 80) records the female type from “Colorado, without definite locality.”

perivincta semirufula Cockerell, 1905 – Colorado.

pulsatillae Cockerell, 1906 – Boulder County.

rhodosoma Cockerell, 1903 – See subspecies.

rhodosoma rhodosomella Cockerell, 1903 – Colorado.

rhodoxantha Cockerell, 1905 – Boulder, Douglas, and Moffat Counties. This species is known only from Colorado. Cockerell (1905: 78) records the female type series from “Colorado, without other locality label.”

rubrella Cockerell, 1905 – Larimer County. This species is known only from Colorado. Cockerell (1905: 75) records the type from Ft. Collins, near foothills, on May 18, 1901 at plum blossoms by Mrs. Laura Titus.

ruidosensis Cockerell, 1903 – Park and Teller Counties.

schwarzi Cockerell, 1903 – See subspecies.

schwarzi schwarzi Cockerell, 1903 – Boulder, Costilla, and Huerfano Counties.

sedi Cockerell, 1919 – Larimer County.

semirugosa Cockerell, 1929 – Boulder County. This species is known only from Colorado. Cockerell (1929a: 297) records the female type from the city of Boulder in 1925 by N. LeVeque.

siccorum Cockerell, 1919 – Larimer County. This species is known only from Colorado. Cockerell (1919: 291-292) records the male type from the Longs Peak Inn in a dry sandy spot on July 21 by Cockerell.

subaccepta Cockerell, 1907 – Teller County. This species is known only from Colorado. Cockerell (1907c: 267-268) records two males from Florissant on June 13 and 15, 1907 by S.A. Rohwer and notes one was at flowers of *Antennaria microphylla*.

taraxacella Cockerell, 1903 – Denver, Larimer, Routt, and Teller Counties

undulaticornis Cockerell, 1906 – Boulder County. This species is known only from Colorado. Cockerell (1906b: 70-71) records the male type from the city of Boulder on April 20, 1905 at flowers of *Pulsatilla hirsutissima* by W.P. Cockerell.

utensis Swenk, 1913 – Costilla County.

valida Smith, 1854 – Colorado.

vallesina Cockerell, 1906 – See subspecies.

vallesina honorata Cockerell, 1922 – Boulder County.

vallesina vallesina Cockerell, 1906 – Colorado. (Type locality.)

vexator Cockerell, 1909 – Boulder, Grand, and Larimer Counties. This species is known only from Colorado. Cockerell (1909: 92-93) described this species from a series of five females and one male all collected from Troublesome, 7,345 ft. on June 9, 1908 by S.A. Rohwer.

vicinalis Cresson, 1878 – See subspecies. This species also occurs in Boulder County.

vicinalis infrarubens Cockerell, 1905 – La Plata, Mineral, and San Miguel Counties.

vicinalis vicinalis Cresson, 1878 – Colorado.

xantholepis Cockerell, 1911 – La Plata County. This species is known only from Colorado. Cockerell (1911a: 239-240) records the male USNM type No. 14022 from Los Pinos on May 22, 1899 from flowers of *Erigeron* by C.F. Baker.

(*superba* group) [= Subgenus *Holonomada*]

edwardsii Cresson, 1878 – Boulder, Delta, Huerfano, Jefferson, Larimer, Mesa, and Yuma Counties.

edwardsii edwardsii Cresson, 1878 – The expected subspecies for Colorado.

grandis Cresson, 1875 – Colorado. (Type locality.)

hemphilli Cockerell, 1903 – Arapahoe County. This is new for Colorado based on a CSUC specimen collected in Englewood on June 14, 1978 by D.A and J.T. Polhemus and determined by D.K. Broemeling.

pecosensis Cockerell, 1903 – Archuleta, Gunnison, Huerfano, Park, and Pueblo Counties.

superba Cresson, 1863 – See subspecies.

superba malvastri Swenk, 1913 – Boulder County.

superba superba Cresson, 1863 – Pikes Peak.

(*vegana* group) [= Subgenera *Hypochrotaenia* and *Micronomada*]

amorphae Swenk, 1913 – Weld County.

arenicola Swenk, 1913 – Bent and Weld Counties.

crucis Cockerell, 1903 – Colorado.

garciana Cockerell, 1907 – Bent and Weld Counties.

gutierreziae Cockerell, 1896 – Colorado.

lamarensis Cockerell, 1905 – Prowers County.

melanoptera Cockerell, 1921 – Sedgwick, Weld, and Yuma Counties.

putnami Cresson, 1876 – Boulder, Denver, El Paso, and Larimer Counties.

ridingsii Cresson, 1878 – Boulder? County. This species is known only from Colorado.

Cresson (1878a: 74) records the female type from Colorado collected by James Ridings, which likely places the collection locality in Boulder County; see section on James Ridings.

suavis Cresson, 1878 – Alamosa County.

texana Cresson, 1872 – Mesa and Prowers Counties.

uhleri Cockerell, 1905 – Larimer County. This species is known only from Colorado.

Cockerell (1905: 77) records the male type from Ft. Collins on August 18, 1900 by E.S.G. Titus.

vegana Cockerell, 1903 – Bent, Boulder, Costilla, Crowley, Denver, El Paso, Fremont, Larimer, Moffat, Montezuma, Otero, Prowers, Saguache, and Weld Counties.

vierecki Cockerell, 1903 – Bent and El Paso Counties.

(*vincta* group) [= Subgenus *Pachynomada*, in part, including the type]

utahensis Moalif, 1988 – Bent, Boulder, Denver, El Paso, Fremont, Jefferson, Larimer, Las Animas, Montezuma, Pueblo, Weld, and Yuma Counties.

vincta Say, 1837 – Alamosa, Boulder, Larimer, Las Animas, and Yuma Counties.

zebrata Cresson, 1878 – Boulder, Denver, Dolores, El Paso, Fremont, Las Animas, and Yuma Counties.

Ammobatoidini

***Holcopasites* (References: Hurd and Linsley 1972; Linsley and Michener 1939)**

(*arizonicus* group)

arizonicus (Linsley, 1942) – Fremont and Rio Blanco Counties.

(*heliopsis* group)

calliopsidis (Linsley, 1943) – See subspecies. Additionally, a photograph by Diane Wilson posted at <http://bugguide.net/node/view/318795> places this species in Jefferson County.

calliopsidis calliopsidis (Linsley, 1943) – Arapahoe, Boulder, Denver, Huerfano, and Larimer Counties.

heliopsis (Robertson, 1897) – Boulder, Larimer, and Yuma Counties.

pulchellus (Cresson, 1878) – Boulder, Larimer, Montezuma, and Rio Blanco Counties.

(*illinoiensis* group)

haematurus Cockerell and Hicks, 1926 – Boulder County.

Brachynomadini

***Brachynomada* (References: Snelling and Rozen 1987)**

(*Melanomada*)

grindeliae (Cockerell, 1903) – Crowley and Pueblo Counties.

Epeolini

***Epeolus* (References: Brumley 1965; Linsley and Michener 1939)**

americanus (Cresson, 1878) – Custer, El Paso, Elbert, Gilpin, La Plata, Larimer, Mineral, Ouray, Park, and Teller Counties.

beulahensis Cockerell, 1904 – Boulder and Park Counties.

bifasciatus Cresson, 1864 – See subspecies.

bifasciatus bifasciatus Cresson, 1864 – Boulder County.

compactus Cresson, 1878 – Colorado.

crucis Cockerell, 1904 – Colorado.

hitei Cockerell, 1908 – Boulder County. This species is known only from Colorado.

Cockerell (1908a: 60) records the female type from Copeland Park in Boulder County on September 6, 1907 by G.M. Hite.

interruptus Robertson, 1900 – Boulder County.

lutzi Cockerell, 1921 – Boulder County.

minimus (Robertson, 1902) – El Paso and Huerfano Counties.

pusillus Cresson, 1864 – Alamosa County.

rufomaculatus Cockerell and Sandhouse, 1924 – Boulder County.

rufulus Cockerell, 1941 – Crowley County. This species is known only from Colorado.

Cockerell (1941: 36) records the female type from Crowley on September 1, 1932 by M.T. James.

***Triepeolus* (References: Linsley and Michener 1939; Rightmyer 2006, 2008)**

(*paenepectoralis* group)

eldoradensis (Cockerell, 1910) – Boulder and Eagle Counties.

paenepectoralis Viereck, 1905 – Boulder, Dolores, Gunnison, Lake, Rio Blanco, and Routt Counties.

(*simplex* group)

lectiformis (Cockerell, 1925) – Logan County. This species is poorly known and only from Colorado. Cockerell (1925: 623) records two females from Logan County on August 23, 1923 by Grace Sandhouse.

rhododontus Cockerell, 1921 – Yuma County.

(*verbesinae* group)

custeri Cockerell, 1926 – Boulder County. This species is known only from Colorado.

Cockerell (1926: 306-307) records the male type from White Rocks near Boulder on September 18, 1925 by Clarence Custer.

cyclurus Cockerell, 1923 – Morgan County. This species is known only from Colorado.

Cockerell (1923: 49-50) records the female type from 6 miles east of Wiggins on August 15 at flowers of *Helianthus petiolaris*.

grindeliae Cockerell, 1907 – Boulder County.

(unplaced to group)

argus Rightmyer, 2008 – Boulder, El Paso, and Weld Counties.

balteatus Cockerell, 1921 – Boulder, Denver, El Paso, Larimer, and Summit Counties.

circumculus Rightmyer, 2008 – Boulder County.

concaus (Cresson, 1878) – Baca, Bent, Boulder, Cheyenne, Crowley, Denver, Elbert, Gilpin, Kit Carson, Larimer, Las Animas, Otero, Prowers, Pueblo, and Yuma Counties.

dacotensis Stevens, 1919 – Montrose County. This is new for Colorado based on a BBSL specimen determined by M. Rightmyer.

denverensis Cockerell, 1910 – Boulder and Denver Counties.

diffusus Rightmyer, 2008 – Delta, Moffat, and Montrose Counties.

distinctus (Cresson, 1878) – Baca County.
diversipes Cockerell, 1924 – Denver County.
fraseriae Cockerell, 1904 – Boulder, Denver, and Logan Counties. Rightmyer (2006) elevated this taxon to species level. Prior to this, it was treated as a subspecies of *Triepeolus cressonii* (Robertson) (Hurd 1979: 2092).
helianthi (Robertson, 1897) – Boulder, Crowley, Douglas, El Paso, Fremont, Garfield, Jefferson, Larimer, Las Animas, Mesa, Montezuma, Otero, Pueblo, Weld, and Yuma Counties.
laticaudus Cockerell, 1921 – Denver, El Paso, and Yuma Counties.
lunatus (Say, 1824) – Baca, Bent, Cheyenne, Kiowa, Otero, Prowers, and Yuma Counties.
lusor Cockerell, 1925 – Logan County. This species is known only from Colorado. Cockerell (1925: 625-626) records the male type from Crook on August 24, 1920 by Grace Sandhouse.
martini (Cockerell, 1900) – Boulder, Crowley, Denver, El Paso, Larimer, Otero, Pueblo, Weld, and Yuma Counties.
micropygius Robertson, 1903 – Boulder and Denver Counties.
occidentalis (Cresson, 1878) – Boulder County.
parvus Rightmyer, 2008 – Boulder and Jefferson Counties.
pectoralis (Robertson, 1897) – Eagle, Fremont, and Mesa Counties.
penicilliferus (Brues, 1903) – Baca County.
perpictus Rightmyer, 2008 – Moffat County.
remigatus (Fabricius, 1804) – Bent, Boulder, Cheyenne, Jefferson, Larimer Counties.
rohweri Cockerell, 1911 – Boulder County. This species is known only from Colorado. Cockerell (1911b: 668-9) records the male type from North Boulder Creek, Boulder County, in the Canadian Zone on August 22, 1907 by S. N. [sic] Rohwer. Rightmyer (2008: 112) cites the male USNM holotype No. 100035 from this same locality, but lists the date as August 23, 1907.
schwarzi Cockerell, 1921 – Rio Blanco County.
sequior Cockerell, 1921 – Ouray County. This species is known only from Colorado. Cockerell (1921a: 8-9) records the male type from Ridgeway, about 7,000ft. on July 15, 1919 in sagebrush country by H.F. Schwarz. Rightmyer (2008: 132) cites the male AMNH holotype as No. 25040.
subalpinus Cockerell, 1910 – Boulder, Costilla, Elbert, Garfield, La Plata, Montezuma, Montrose, and Routt Counties.
tanneri Cockerell, 1928 – Colorado.
texanus (Cresson, 1878) – Garfield, Gunnison, Larimer, and Teller Counties.
townsendi Cockerell, 1907 – El Paso, Larimer, and Teller Counties.

Apinae

Exomalopsini

***Anthophorula* (References: Hurd 1979; Timberlake 1980b)**

(*Anthophorisca*)

pygmaea (Cresson, 1872) – Boulder and Logan Counties.

(*Anthophorula*)

albata (Timberlake, 1947) – Delta County. This is new for Colorado based on three female UCMC specimens collected 4 miles west of Delta on July 1, 1938 by R. Bauer and determined by TG.

***Exomalopsis* (References: Timberlake 1947, 1980b)**

(*Stilbomalopsis*)

solani Cockerell, 1896 – Baca, Bent, Fremont, and Pueblo Counties.

Emphorini

***Ancyloscelis* (References: Michener 1942)**

sejunctus Cockerell, 1933 – Baca County.

Diadasia (References: Adlakha 1969; Sipes and Wolf 2001; Snelling 1994; Timberlake 1941) Although Michener (2000, 2007) no longer recognizes the subgenera listed here, we find them useful.

(*Coquilletapis*)

(*australis* group)

australis (Cresson, 1878) – Arapahoe, Boulder, Denver, Jefferson, Larimer, Las Animas, Morgan, and Pueblo Counties. Hurd (1979: 2121) lists the following two subspecies for Colorado.

australis australis (Cresson, 1878) – Colorado.

australis californica Timberlake, 1940 – Colorado.

rinconis Cockerell, 1897 – Arapahoe, Boulder, Fremont, Huerfano, Jefferson, and Weld Counties.

rinconis rinconis Cockerell, 1897 – The currently recognized subspecies in Colorado.

(*nigrifrons* group)

diminuta (Cresson, 1878) – Arapahoe, Bent, Boulder, Chaffee, Denver, El Paso, Fremont, Garfield, Huerfano, Jefferson, Kit Carson, La Plata, Larimer, Las Animas, Moffat, Montezuma, Otero, Pueblo, and Saguache Counties.

lutzi Cockerell, 1924 – El Paso and Gunnison Counties. This is new for Colorado. The El Paso County record is based on three female UCMC specimens collected at Foster Ranch, 5,700 ft., T15S R65W Sec14 S1/2 on July 10, 1976 by F.M. Brown and determined by R.W. Thorp. Two were collected on chicory and one on *Heterotheca villosa*. The Gunnison County record is based on a BBSL specimen determined by S. Sipes and confirmed by TG.

lutzi lutzi Cockerell, 1924 – The currently recognized subspecies in Colorado.

nigrifrons Cresson, 1878 – Moffat County.

(*Dasiapis*)

ochracea (Cockerell, 1903) – Bent, La Plata, and Otero Counties.

(*Diadasia*)

enavata (Cresson, 1872) – Bent, Kiowa, Kit Carson, Las Animas, Mesa, Otero, Prowers, and Sedgwick Counties.

Melitoma (References: Hurd 1979)

grisella (Cockerell and Porter, 1899) – Bent, Boulder, Crowley, Denver, Douglas, El Paso, Otero, and Weld Counties.

Eucerini

Eucerina

Eucera (References: Timberlake 1969)

(*Synhalonia*)

actuosa (Cresson, 1878) – Delta, Mesa, and Montezuma Counties.

aragalli (Cockerell, 1904) – El Paso County.

chrysobotryae (Cockerell, 1908) – Boulder, Denver, and Weld Counties.

chrysophila (Cockerell, 1914) – Larimer County.

cordleyi (Viereck, 1905) – Boulder and Montezuma Counties.

edwardsii (Cresson, 1878) – Boulder and Eagle Counties.

frater (Cresson, 1878) – See subspecies.

frater frater (Cresson, 1878) – Boulder, Grand, La Plata, and Larimer Counties.

fulvitaris (Cresson, 1878) – See subspecies. This species also occurs in Eagle, Grand, Larimer, and Montrose Counties.

fulvitaris annae (Cockerell, 1937) – Archuleta County.

fulvitaris fulvitaris (Cresson, 1878) – Moffat County.

hamata (Bradley, 1942) – Weld County.

lepida (Cresson, 1878) – Colorado.

lutziana (Cockerell, 1933) – Boulder and El Paso Counties.

pagosana (Cockerell, 1925) – Archuleta County.
pallidihirta (Timberlake, 1969) – Weld County. This is new for Colorado based on a BBSL specimen determined by TG.

phaceliae (Cockerell, 1911) – Delta County. This is new for Colorado based on BBSL specimens determined by TG.

speciosa (Cresson, 1878) – Boulder, El Paso, and Larimer Counties.

suavis (Cresson, 1878) – Boulder County. This species is known only from Colorado.

Cresson (1878b: 210) records the female type from Colorado collected by H.K. Morrison.

***Florilegus* (References: Urban 1970)**

(*Florilegus*)

condignus (Cresson, 1878) – Montezuma, Otero, and Yuma Counties.

***Melissodes* (References: LaBerge 1956a, 1956b, 1961)**

(*Callimelissodes*)

coloradensis Cresson, 1878 – Boulder County.

composita Tucker, 1909 – Denver, El Paso, and Montezuma Counties.

glenwoodensis Cockerell, 1905 – Boulder, Denver, El Paso, Garfield, Jefferson, Larimer, Lincoln, Moffat, Montezuma, and Otero Counties.

lupina Cresson, 1878 – Moffat and Rio Blanco Counties.

(*Eumelissodes*)

agilis Cresson, 1878 – Adams, Alamosa, Arapahoe, Baca, Bent, Boulder, Cheyenne, Clear Creek, Conejos, Costilla, Crowley, Denver, El Paso, Garfield, Gilpin, Huerfano, Jefferson, Kiowa, Kit Carson, La Plata, Lake, Larimer, Las Animas, Logan, Mesa, Moffat, Montezuma, Montrose, Morgan, Otero, Prowers, Pueblo, Rio Blanco, Saguache, Sedgwick, and Yuma Counties.

bicolorata LaBerge, 1961 – Moffat County. This is new for Colorado based on a BBSL specimen determined by JSA.

bimatrix LaBerge, 1961 – Denver and Montezuma Counties.

confusa Cresson, 1878 – Archuleta, Boulder, Chaffee, Costilla, Custer, Dolores, El Paso, Fremont, Gilpin, Grand, Jefferson, Lake, Larimer, Mineral, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Saguache, San Miguel, and Teller Counties plus the San Luis Valley.

coreopsis Robertson, 1905 – Adams, Boulder, Clear Creek, Conejos, Crowley, Delta, Denver, El Paso, Elbert, Fremont, Jackson, Jefferson, Kiowa, Kit Carson, Larimer, Lincoln, Logan, Montezuma, Otero, Prowers, Sedgwick, Teller, and Weld Counties.

druriella (Kirby, 1802) – Archuleta, Elbert, Fremont, Jefferson, Larimer, Las Animas, Montezuma, and Park Counties.

gelida LaBerge, 1961 – Adams, Arapahoe, Boulder, and Denver Counties

grindeliae Cockerell, 1898 – Arapahoe, Archuleta, Boulder, Chaffee, Douglas, El Paso, Fremont, Garfield, Jefferson, La Plata, Lake, Larimer, Montezuma, Park, Pitkin, Pueblo, Rio Blanco, and Teller Counties.

hymenoxidis Cockerell, 1906 – Boulder, Chaffee, Eagle, Gilpin, Jackson, Lake, Larimer, Mineral, Montrose, Ouray, Rio Blanco, San Miguel, and Teller Counties.

lutulenta LaBerge, 1961 – Costilla, Eagle, Fremont, Jackson, Larimer, Moffat, Montezuma, Rio Blanco, and Saguache Counties.

menuachus Cresson, 1868 – Adams, Alamosa, Boulder, Custer, Denver, Eagle, El Paso, Elbert, Fremont, Jefferson, La Plata, Larimer, Las Animas, Lincoln, Montezuma, Otero, Prowers, Pueblo, Teller, Weld, and Yuma Counties.

microsticta Cockerell, 1905 – Boulder, Chaffee, Delta, Fremont, Garfield, Gilpin, Grand, Larimer, Mesa, Ouray, Pitkin, Rio Blanco, and Yuma Counties.

montana Cresson, 1878 – Boulder, El Paso, Jefferson, and Teller Counties.

pallidisignata Cockerell, 1905 – Adams, Arapahoe, Boulder, Denver, El Paso, Fremont, Jackson, Jefferson, Larimer, Las Animas, Moffat, Pueblo, Rio Blanco, and Weld Counties.

- perlusa* Cockerell, 1925 – Boulder, Clear Creek, Denver, Jefferson, Larimer, Las Animas, Logan, Montezuma, and Saguache Counties plus the San Luis Valley
- perpolita* LaBerge, 1961 – Montezuma County.
- saponellus* Cockerell, 1908 – Delta County.
- semilupina* Cockerell, 1905 – Alamosa and Jefferson Counties plus Great Sand Dunes National Monument and Preserve.
- snowii* Cresson, 1878 – Adams, Arapahoe, Denver, and Weld Counties.
- subagilis* Cockerell, 1905 – Adams, Boulder, Denver, Larimer, Las Animas, Lincoln, Logan, Moffat, Montezuma, Ouray, Rio Blanco, Routt, Saguache, and Yuma Counties plus the San Luis Valley. Also, see *Tetraloniella excurrens* in List of Problematic Taxa.
- submenuacha* Cockerell, 1897 – Fremont County.
- tristis* Cockerell, 1894 – Archuleta, Bent, Boulder, Chaffee, Conejos, Crowley, Custer, Denver, El Paso, Fremont, Gunnison, Larimer, Las Animas, Logan, Montezuma, Montrose, Otero, Park, Prowers, Pueblo, Routt, Saguache, Sedgwick, Teller, and Weld Counties.
- vernoniae* Robertson, 1902 – Denver, Larimer, and Yuma Counties.
- (Heliomelissodes)**
- rivalis* Cresson, 1872 – Boulder, Custer, El Paso, Garfield, Gunnison, Jefferson, Larimer, and Moffat Counties.
- (Melissodes)**
- bimaculata* (Lepelletier, 1825) – See subspecies.
- bimaculata bimaculata* (Lepelletier, 1825) – Adams, Boulder, Costilla, Denver, Larimer, Otero, and Prowers Counties.
- communis* Cresson, 1878 – See subspecies. The species also occurs in San Miguel County.
- communis alopex* Cresson, 1878 – Intergrades in Delta and San Miguel Counties.
- communis communis* Cresson, 1878 – Baca, Bent, Boulder, Crowley, Denver, El Paso, Jefferson, Kiowa, Larimer, Lincoln, Morgan, Otero, Prowers, Teller, and Weld Counties.
- comptoides* Robertson, 1898 – Adams, Baca, Bent, Boulder, Cheyenne, Crowley, Kiowa, Kit Carson, Larimer, Las Animas, Otero, Prowers, Weld, and Yuma Counties.
- gilensis* Cockerell, 1896 – See subspecies.
- gilensis gilensis* Cockerell, 1896 – Boulder County.
- (Psilomelissodes)**
- intorta* Cresson, 1872 – Yuma County. This is new for Colorado based on a male UCMC specimen that was collected at Beecher Island on June 21, 1979 from *Melilotus* by U.N. Lanham and determined by K. Wetherill.
- (Tachymelissodes)**
- dagosa* Cockerell, 1909 – Alamosa, Boulder, Delta, Dolores, Montezuma, Montrose, Rio Grande, and Saguache Counties.
- Peponapis (References: Hurd and Linsley 1964, 1970)**
- (Peponapis)**
- (pruinosa group)**
- pruinosa* (Say, 1837) – Boulder, Denver, Fremont, La Plata, Larimer, Las Animas, Mesa, Otero, Pueblo, and Yuma Counties.
- Svastra (References: LaBerge 1955, 1956a, 1958)**
- (Anthedonia)**
- compta* (Cresson, 1878) – El Paso County.
- (Brachymelissodes)**
- cressonii* (Dalla Torre, 1896) – Baca, Kiowa, Otero, Prowers, and Yuma Counties.
- (Epimelissodes)**
- (atripes group)**
- atripes* (Cresson, 1872) – See subspecies.
- atripes atripes* (Cresson, 1872) – Otero and Prowers Counties.

(*obliqua* group)

comanche (Cresson, 1872) – Colorado.

obliqua (Say, 1837) – See subspecies. This species also occurs in Archuleta, Delta, Douglas, and Weld Counties.

obliqua expurgata (Cockerell, 1925) – Mesa and Montezuma Counties.

obliqua obliqua (Say, 1837) – Adams, Arapahoe, Baca, Bent, Boulder, Clear Creek, Crowley, Denver, El Paso, Elbert, Fremont, Huerfano, Jefferson, Kiowa, Kit Carson, Larimer, Las Animas, Lincoln, Logan, Otero, Prowers, Pueblo, and Yuma Counties.

texana (Cresson, 1872) – See subspecies. This species also occurs in Bent County.

texana texana (Cresson, 1872) – El Paso County.

(*petulca* group)

petulca (Cresson, 1878) – See subspecies.

petulca suffusa (Cresson, 1878) – Baca, Kit Carson, and Otero Counties.

Tetraloniella (References: LaBerge 2001)

(*Tetraloniella*)

albata (Cresson, 1872) – Larimer County.

cressoniana (Cockerell, 1905) – Saguache County.

eriocarpi (Cockerell, 1898) – La Plata and Montezuma Counties.

paenalbata LaBerge, 2001 – Bent County.

spissa (Cresson, 1872) – Crowley, Jefferson, and Otero Counties.

Xenoglossa (References: Hurd and Linsley 1964, 1967, 1970)

(*Eoxenoglossa*)

kansensis Cockerell, 1905 – Baca, Boulder, Crowley, El Paso, Otero, Prowers, and Pueblo Counties.

strenua (Cresson, 1878) – Bent, Boulder, Denver, Fremont, Logan, and Pueblo Counties.

Anthophorini

Anthophora (References: Brooks 1983, 1988)

(*Anthophoroides*)

californica Cresson, 1869 – Bent, Denver, Larimer, Las Animas, and Weld Counties.

(*Clisodon*)

terminalis Cresson, 1869 – Boulder, Chaffee, Conejos, Custer, Delta, Eagle, El Paso, Fremont, Garfield, Grand, Gunnison, Huerfano, La Plata, Lake, Larimer, Mineral, Montezuma, Ouray, Pitkin, Routt, San Miguel, and Teller Counties.

(*Heliophila*)

(*estebana* group)

albata Cresson, 1876 – Colorado.

arthuri Cockerell, 1906 – Moffat County. This species is known only from Colorado.

Cockerell (1906a: 72) records the type female from Maybell on August 1, 1904 on yellow flowers of the family Compositae by S.A. Johnson.

exigua Cresson, 1879 – Colorado.

flexipes Cresson, 1879 – Jackson and Teller Counties.

maculifrons Cresson, 1879 – Moffat County.

peritomae Cockerell, 1905 – Alamosa, Garfield, Montezuma, and Rio Blanco Counties.

petrophila Cockerell, 1905 – Montezuma County. This is new for Colorado based on two male AMNH specimens collected in Mesa Verde National Park on August 23, 1934. One was collected by F.E. Lutz while the other was collected by D. Rockefeller. Both were determined by R.W. Brooks.

squamulosa Dours, 1869 – Alamosa, Chaffee, Conejos, Denver, and Montezuma Counties.

(*Lophanthophora*)

(*porterae* group)

affabilis Cresson, 1878 – Baca, Bent, Boulder, Denver, El Paso, Elbert, Gunnison, Huerfano, Larimer, Las Animas, Montezuma, Pueblo, and Weld Counties.

dammersi Timberlake, 1937 – Delta County.

neglecta Timberlake and Cockerell, 1936 – Montezuma County.

pacifica Cresson, 1878 – Colorado.

porterae Cockerell, 1900 – Boulder, Delta, Fremont, Huerfano, Jefferson, Larimer, Mesa, and Moffat Counties.

ursina Cresson, 1869 – Archuleta, Boulder, Denver, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Grand, Jefferson, Larimer, Mesa, Moffat, Montezuma, and Teller Counties.

(*Melea*)

(*bomboides* group)

bomboides Kirby, 1837 – Alamosa, Boulder, Delta, Denver, Douglas, Eagle, El Paso, Garfield, Grand, Gunnison, Huerfano, Jackson, Jefferson, Larimer, Las Animas, Mesa, Moffat, Montezuma, Rio Grande, Routt, San Miguel, and Teller Counties.

occidentalis Cresson, 1869 – Baca, Bent, Boulder, Conejos, Costilla, Delta, Denver, Douglas, Eagle, El Paso, Garfield, Gunnison, Huerfano, Kit Carson, Larimer, Las Animas, Mesa, Moffat, Montezuma, Morgan, Otero, Rio Blanco, and Weld Counties plus the San Luis Valley.

(*Mystacanthophora*)

(*montana* group)

montana Cresson, 1869 – Adams, Alamosa, Arapahoe, Archuleta, Baca, Bent, Boulder, Crowley, Custer, Denver, Douglas, El Paso, Fremont, Gilpin, Gunnison, Huerfano, Jefferson, Kiowa, Kit Carson, Larimer, Las Animas, Lincoln, Montezuma, Morgan, Otero, Pueblo, Saguache, Teller, Weld, and Yuma Counties plus the San Luis Valley.

walshii Cresson, 1869 – Boulder, Jefferson, Kit Carson, Larimer, Las Animas, Montezuma, Otero, Prowers, Weld, and Yuma Counties.

(*urbana* group)

urbana Cresson, 1878 – Chaffee, Custer, Delta, Dolores, Fremont, Gilpin, Gunnison, Jefferson, Larimer, Mesa, Moffat, Montezuma, Montrose, Pueblo, and Rio Blanco Counties.

(*Pyganthophora*)

(*crotchii* group)

lesquerellae (Cockerell, 1896) – Delta County.

(*retusa* group)

edwardsii Cresson, 1878 – Boulder, Denver, Huerfano, Larimer, Montrose, and Routt Counties.

***Habropoda* (References: Hurd 1979)**

cineraria (Smith, 1879) – Alamosa, Boulder, Conejos, Costilla, Douglas, Eagle, Garfield, Gilpin, Grand, Jefferson, Larimer, Moffat, Montrose, and Park Counties.

citula (Cockerell, 1929) – Archuleta and Montezuma Counties. This species is poorly known and only from Colorado. Cockerell (1929b: 442) records the type male from Mesa Verde National Park on July 12, 1929 by P.R. Franke.

cressonii (Dalla Torre, 1896) – Boulder, Chaffee, Saguache, and Teller Counties.

morrisoni (Cresson, 1878) – Boulder, Eagle, Larimer, Moffat, and Weld Counties.

vierecki (Cockerell, 1909) – Colorado. This poorly known species was described by Cockerell (1909: 414) where he writes “EMPHOROPSIS VIERECKI, new species. *Emphoropsis*, new species, Cockerell, Canadian Entomologist, July, 1905, p. 265. Allied to *E. pascoensis* Cockerell, but hair of face and vertex without black intermixed. Colorado and New Mexico. I supposed in 1905 that Mr. Viereck was about to describe it, but as he did not do so, I provide a name. The type is in the collection of the American Entomological Society.”

Melectini

***Melecta* (References: Hurd and Linsley 1951; Linsley 1939)**

(Melecta)

pacifica Cresson, 1878 – See subspecies and List of Problematic Taxa.

pacifica fulvida Cresson, 1879 – Baca, Boulder, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Jackson, Jefferson, Larimer, Las Animas, Mesa, Montezuma, Montrose, Rio Blanco, Rio Grande, Routt, Sedgwick, and Teller Counties.

separata Cresson, 1879 – See subspecies.

separata johnsoni (Cockerell, 1905) – Boulder and Larimer Counties.

thoracica Cresson, 1875 – Larimer County.

***Xeromelecta* (References: Hurd and Linsley 1951; Linsley 1939)**

(Melectomorpha)

californica (Cresson, 1878) – Alamosa, Baca, Boulder, Crowley, Denver, Douglas, El Paso, Larimer, Moffat, Montezuma, Otero, and Weld Counties.

interrupta (Cresson, 1872) – Alamosa, Bent, Boulder, El Paso, Huerfano, Jefferson, Larimer, Lincoln, Teller, and Yuma Counties.

***Zacosmia* (References: Hurd and Linsley 1951; Linsley 1939)**

maculata (Cresson, 1879) – Colorado. See subspecies.

maculata maculata (Cresson, 1879) – The expected subspecies for western Colorado. Hurd (1979: 2172) records this subspecies from Alberta, Washington, California, Idaho, Utah, Wyoming, and Colorado, although Hurd and Linsley (1951: 123 and map 1) show this subspecies as occurring only in Washington, Oregon, and California.

Centridini

***Centris* (References: Snelling 1966d, 1974, 1984)**

(Paracentris)

caesalpiniae Cockerell, 1897 – Bent and Otero Counties. This is new for Colorado based on a female CSUC specimen collected in Higbee Canyon off Hwy 109 in Otero County on June 12, 2007 by B. Kondratieff and W. Cranshaw and a female UCMC specimen collected 2 miles south of Hasty in Bent County on June 25, 1975 from flowers of tamarisk by U.N. Lanham. Both specimens were determined by JSA.

Bombini

***Bombus* (References: Byron 1980; Franklin 1913; Kearns and Thomson 2001; LaBerge and Webb 1962; Milliron 1971, 1973a, 1973b; Stephen 1957; Thorp et al. 1983; Williams 1998; Williams et al. 2008)**

(Alpinobombus)

balteatus Dahlbom, 1832 – Boulder, Clear Creek, Gilpin, Grand, Gunnison, Hinsdale, Larimer, Mesa, Mineral, Park, Pitkin, San Miguel, and Summit Counties.

(Bombias)

(nevadensis group)

auricomus (Robertson, 1903) – Boulder, Larimer, and Yuma Counties. One additional record from El Paso County was located at the University of Minnesota Insect Collection (UMSP) and a Weld County record was located at the University of Wyoming Entomological Museum (ESUW) by C. Boyd (pers. comm.).

nevadensis Cresson, 1874 – Adams, Alamosa, Archuleta, Bent, Boulder, Chaffee, Conejos, Denver, Dolores, Douglas, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jefferson, La Plata, Larimer, Mesa, Moffat, Montrose, Park, Pueblo, Routt, Saguache, Teller, and Weld Counties.

(Bombus)

occidentalis Greene, 1858 – Boulder, Chaffee, Clear Creek, Conejos, Costilla, Delta, Denver, Dolores, Douglas, Eagle, El Paso, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Mesa, Mineral, Moffat, Montezuma,

Montrose, Ouray, Park, Pitkin, Rio Grande, Routt, Saguache, San Miguel, Summit, and Teller Counties. Although this species used to be common in Colorado, it has become undetectable across much of its former range. It was documented in Boulder, Chaffee, Gunnison, Larimer, Mesa, Montrose, and Summit Counties in 2008 and/or 2009 (UCMC and BBSL specimens) and by a Diane Wilson photograph of a very yellow individual for Colorado, <http://bugguide.net/node/view/358442> from Jefferson County on July 27, 2009. It continues to be seen on rare occasion including a recently collected worker UCMC specimen from Arvada on July 20, 2011 by D.M. Wilson.

(*Cullumanobombus*)

(*griseocollis* group)

griseocollis (DeGeer, 1773) – Adams, Baca, Bent, Boulder, Delta, Douglas, El Paso, Fremont, Jefferson, Larimer, Moffat, Morgan, Otero, Prowers, Pueblo, Saguache, Weld, and Yuma Counties.

morrisoni Cresson, 1878 – Adams, Alamosa, Archuleta, Baca, Bent, Boulder, Chaffee, Conejos, Costilla, Delta, Denver, Dolores, Douglas, El Paso, Fremont, Garfield, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Lincoln, Mesa, Mineral, Moffat, Montezuma, Montrose, Morgan, Otero, Ouray, Prowers, Pueblo, Saguache, San Juan, Teller, and Weld Counties.

(*robustus* group)

fraternus (Smith, 1854) – Adams, Arapahoe, Baca, Bent, Boulder, Denver, Douglas, El Paso, Elbert, Fremont, Huerfano, Jefferson, Kit Carson, Larimer, Morgan, Otero, Prowers, Sedgwick, Teller, Weld, and Yuma Counties.

(*rufocinctus* group)

rufocinctus Cresson, 1863 – Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Delta, Denver, Dolores, Douglas, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Las Animas, Logan, Mesa, Mineral, Moffat, Montrose, Ouray, Park, Pitkin, Rio Blanco, Routt, Saguache, San Miguel, Summit, Teller, and Weld Counties.

(*Psithyrus*)

(*bohemicus* group)

suckleyi Greene, 1860 – Boulder, Chaffee, Clear Creek, Conejos, Eagle, Gilpin, Grand, Gunnison, Jackson, La Plata, Larimer, Mesa, Pitkin, Routt, and San Miguel Counties.

(*citrinus* group)

insularis (Smith, 1861) – Adams, Alamosa, Boulder, Chaffee, Conejos, Custer, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, La Plata, Larimer, Mesa, Moffat, Montezuma, Montrose, Ouray, Park, Pitkin, Routt, San Juan, San Miguel, Summit, and Teller Counties.

(*sylvestris* group)

fernaldae (Franklin, 1911) – Archuleta, Boulder, Conejos, Gilpin, Grand, Gunnison, Jackson, Larimer, Montrose, Ouray, San Juan, San Miguel, and Teller Counties.

(*Pyrobombus*)

(*lapponicus* group)

bifarius Cresson, 1878 – Alamosa, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Delta, Dolores, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, La Plata, Lake, Larimer, Las Animas, Logan, Mesa, Mineral, Moffat, Montezuma, Montrose, Ouray, Park, Pitkin, Rio Blanco, Rio Grande, Routt, Saguache, San Juan, San Miguel, Summit, and Teller Counties.

huntii Greene, 1860 – Adams, Alamosa, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Delta, Denver, Dolores, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Jefferson, La Plata, Larimer, Logan, Mesa, Mineral, Moffat, Montezuma, Montrose, Morgan, Otero, Ouray, Park, Pitkin, Pueblo, Rio Blanco, Rio Grande, Routt, Saguache, Teller, and Weld Counties plus the San Luis Valley.

melanopygus Nylander, 1848 – Boulder, Clear Creek, Conejos, El Paso, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Larimer, Mineral, Park, Pitkin, Summit, and Teller Counties.

sylvicola Kirby, 1837 – Boulder, Chaffee, Clear Creek, Conejos, Custer, Delta, Dolores, Eagle, El Paso, Garfield, Gilpin, Grand, Gunnison, Hinsdale, Huerfano, Jackson, Lake, Larimer, Mesa, Mineral, Montezuma, Park, Pitkin, Routt, Saguache, San Miguel, and Summit Counties.

(*vagans* group)

centralis Cresson, 1864 – Alamosa, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Costilla, Custer, Dolores, Douglas, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, La Plata, Larimer, Las Animas, Mesa, Mineral, Montrose, Ouray, Park, Pitkin, Rio Blanco, Routt, Saguache, San Miguel, Summit, and Teller Counties.

flavifrons Cresson, 1863 – Alamosa, Boulder, Chaffee, Clear Creek, Conejos, Custer, Delta, Dolores, Douglas, El Paso, Elbert, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, La Plata, Lake, Larimer, Mesa, Mineral, Montezuma, Montrose, Ouray, Park, Pitkin, Routt, Saguache, San Juan, San Miguel, Summit, and Teller Counties.

(*pratorum* group)

frigidus Smith, 1854 – Boulder, Clear Creek, Eagle, Grand, Gunnison, Hinsdale, Jackson, Lake, Larimer, Park, Routt, Saguache, and Summit Counties.

mixtus Cresson, 1878 – Alamosa, Boulder, Chaffee, Clear Creek, Conejos, Eagle, Garfield, Gilpin, Grand, Gunnison, Jackson, Lake, La Plata, Larimer, Mesa, Mineral, Montrose, Ouray, Park, Pitkin, Routt, San Juan, and San Miguel Counties.

(*Subterraneobombus*)

appositus Cresson, 1878 – Alamosa, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Delta, Denver, Douglas, Eagle, El Paso, Elbert, Fremont, Garfield, Gilpin, Grand, Gunnison, Huerfano, Jackson, Jefferson, Larimer, Mesa, Montezuma, Montrose, Ouray, Park, Pitkin, Rio Blanco, Rio Grande, Routt, Saguache, San Miguel, and Teller Counties.

(*Thoracobombus*)

(*pensylvanicus* group)

californicus Smith, 1854 – Boulder, Chaffee, Dolores, Garfield, Gilpin, Grand, Gunnison, Jefferson, Larimer, Mesa, Moffat, Montrose, Ouray, Park, Routt, Summit, and Teller Counties.

fervidus (Fabricius, 1798) – Alamosa, Arapahoe, Boulder, Conejos, Delta, Denver, Dolores, Douglas, El Paso, Elbert, Fremont, Garfield, Gilpin, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Lincoln, Mesa, Moffat, Montezuma, Montrose, Morgan, Otero, Ouray, Pueblo, Rio Blanco, Saguache, Teller, Weld, and Yuma Counties.

pensylvanicus (DeGeer, 1773) – Adams, Alamosa, Baca, Bent, Boulder, Crowley, Delta, Denver, Douglas, El Paso, Elbert, Fremont, Huerfano, Jefferson, Kiowa, Kit Carson, Larimer, Las Animas, Lincoln, Logan, Mesa, Moffat, Morgan, Otero, Phillips, Prowers, Pueblo, Sedgwick, Weld, and Yuma Counties.

Apini

Apis (References: Hurd 1979)

(*Apis*)

mellifera Linnaeus, 1758 – Documented from Adams, Alamosa, Arapahoe, Bent, Boulder, Chaffee, Conejos, Costilla, Crowley, Delta, Denver, Dolores, Douglas, Eagle, El Paso, Elbert, Fremont, Gilpin, Gunnison, Huerfano, Jefferson, La Plata, Larimer, Las Animas, Mesa, Moffat, Montezuma, Montrose, Ouray, Prowers, Pueblo, Rio Blanco, Rio Grande, Saguache, Teller, and Weld Counties. This non-native species, intentionally introduced long ago to North America, is surely found throughout Colorado except at higher elevations.