

**Bees of Travis County and Brackenridge Field Lab, The University of Texas at Austin**  
**John L. Neff - Central Texas Melittological Institute - Austin, TX – 2021**  
**Edited by Laurel Treviño Murphy, Outreach Program Coordinator, with J. Neff's permission, 2023**

This list of 336 species is a combination of literature records and my personal collections over thirty years. No site in Travis County is likely to support all these species and most will have fewer. Some species are quite rare locally and a significant number may now be locally extinct. Even some previously common species, such as *Bombus pensylvanicus*, are now scarce. My primary focus was to establish a complete list for the Brackenridge Field Lab of the University of Texas, a 60-acre facility along Lady Bird Lake in west Austin. 236 bee species have thus far been reported from BFL.

Most of these bees are solitary nesters (a single female constructs her own nest) who excavate their nests in soil. Others may be communal (several females occupy a single nest without any obvious division of labor) or may show some level of sociality (multiple females coexist with some division of reproductive effort). Some species nest in pre-existing cavities (renting species), excavate cavities in wood (carpenter bees) or build freestanding nests of mud or mortar (potter bees or true mason bees). A wide array of material is used by different bees for nest construction. These include materials they collect such as mud, pebbles, resin, feces, sawdust, wood fibers, plant hairs, whole or chewed leaves or leaf or petal pieces. Various substances secreted by bees, such as waxes and various complex lipids, are also used in nest construction. Some bees, like bumble bees and honey-bees, visit and collect pollen from a wide range of flowers (*polylecty*) while others are quite host specific (*oligolecty*), restricting their pollen collection to a few related species. Common local examples of the latter phenomenon are the squash bees (*Peponapis* and *Xenoglossa* spp.) associated with *Cucurbita* species, *Diadasia afflicta* with wine cups (*Callirhoe* spp.) and *Svastra petulca* and *Svastra obliqua* with various members of the sunflower family.

An unusual phenomenon among local bees is the collection of floral oils (fatty acids or glycerides) by female *Centris* bees. Locally, these oils are produced by the flowers of rhatany (*Krameria*), *Alophia* and various introduced plants in the Malpighiaceae. In addition, many bee species (23.8% of the Travis County fauna) are professional parasites (or cuckoos). Such species do not construct their own nests but rather specialize in laying eggs in nests of other bee species. Many of these parasitic bees are quite wasp-like in appearance and often may not be recognized as bees by the casual observer.

Travis County is a rapidly urbanizing area covers 1,022 square miles in south-central Texas. It was long a rather sleepy area with an economy dominated by state government and the University of Texas at Austin, it has grown rapidly in recent years and the current population now exceeds 1,000,000. Land altitudes range from 122 m to 396 m with most of the county being rather flat and the highest areas in the Texas Hill Country that begins at the Balcones Escarpment south of the Colorado River, which bisects the county. Most of the eastern half of the county was originally black land prairie while the western half supported the savannas of the Edwards Plateau, and the Hill Country supported juniper-oak forests. Today, very little pristine habitat remains. Virtually all the black land prairies were plowed for cotton production long ago. Little cotton is still grown but the land remains either in agricultural production or is being converted to residential subdivisions.

The Edwards Plateau was severely overgrazed in the 19<sup>th</sup> century, leading to extensive erosion of the relatively shallow, calcareous soils. Now, mesquite (*Prosopis glandulosa*) and juniper (*Juniperus ashei*) expand into savannas. Austin has a humid subtropical climate with mild dry winters and hot dry summers. Rainfall averages 82.8 cm, most falling bimodally in late spring or fall. Rain often falls in very intense storms, leading to local flash flooding, while extended droughts are a regular occurrence. The vascular flora of Travis County is quite rich. According to a checklist compiled by William R. Carr, it consists of more that 1,520 species in 142 plant families.

## Bee Family and Subfamily Description - Nesting and Foraging Behavior

### Apidae Family: Apinae, Xylocopinae, Nomadinae Subfamilies

**Apinae:** A very diverse group of long-tongued bees including true honeybees (*Apis* spp.), bumble bees (*Bombus* spp.), orchid bees (*Euglossini*), stingless bees (*Meliponini*), and a large group of ground-nesting species (of different family) sometimes lumped together as digger bees, as well as associated cuckoo bees.

**Xylocopinae:** North America, representatives are large, heavy bodied carpenter bees (*Xylocopa* spp.), which usually excavate nests in solid wood; much smaller, small carpenter bees (*Ceratina* spp.), excavate nests in pithy stems. **Nomadinae:** A large group consisting entirely of parasitic bees, often called cuckoo bees.

**Anthophorinae:** A small clade of ground-nesting bees, such as *Anthophora* sp., are often called digger bees.

### Megachilidae Family: Anthidiinae, Megachilinae Subfamilies

A diverse group of long-tongued bees in which the pollen-collecting females carry pollen on hair-brushes (scopae) under the abdomen, rather than on hind legs, as most other bees. Sometimes lumped together as **leafcutter bees** even though leaf cutting is restricted to some species of *Megachile*, *Osmia*, and *Hoplitis*. Other common bees are **potter bees**, some **Anthidiinae** who build pot-like mud nests, and some *Anthidium* **carder bee** species who line their nests with plant hairs. **Mason bee** is a name used, in a narrow sense, for a few species of *Megachile*, *Osmia*, and *Hoplitis* (**Megachilinae**) that build freestanding masonry nests. The name is now applied to *Osmia* species that line nest cavities with mud or chewed leaves.

### Halictidae Family: Halictinae; Nomiinae; Rhophitinae Subfamilies

A large group of short-tongued bees with many social and solitary species as well as some cuckoos. Most are black or dull brown but *Agapostemon*, *Augochlora*, *Augochlorella*, *Augochloropsis* are bright, metallic, green. *Lasioglossum* and *Halictus* species are often known as tiny dark or striped sweat bees (**Halictinae**).

### Andrenidae Family: Andreninae; Panurginae Subfamilies

A large group of short-tongued, ground nesting bees, sometimes forming large nest aggregations. Species of *Andrena* (Andreninae) are sometimes called **mining bees**, a name often extended to other ground-nesting groups. Most species of *Andrena* are hairy and about the size of honey-bees, while bees in the Panurgines are typically much smaller, more colorful, and less hairy. The **Panurginae** subfamily includes the smallest of all bees, *Perdita* is less than 2 mm long.

### Colletidae Family: Colletinae Subfamily

Central Texas species are either *Colletes*, hairy, short-tongued bees, called **plasterer bees**, or *Hylaeus*, small, hairless, black bees sometimes called **white-faced bees** [or **masked bees**] due to pale facial markings of the males. The nests of all (**Colletinae**) species are coated with a film of transparent secretions made of polycyclic lactones [that peel off walls like a bag]. [Some are communal species.] The Colletidae family is particularly diverse in the Southern Hemisphere.

### Melittidae Family: Dasypodinae - Hesperapis

Rare bees that collect plant oils to pack with pollen for their brood, and commonly named, **oil-collecting bees**. One local genus in this family is found in BFL. Travis Co.

### Summary Table - Bees of Travis County and BFL, UT Austin, 2021 by John L. Neff.

Laurel Treviño summarized, sorted genera & spp. per family from most to least diverse (see end of document).

Family	Subfamily (# genera)	# Genera	# Sp.	# Sp. BFL
Apidae	Nomadinae (8), Eucerinae (2), Anthophorinae (3), Apinae (3), Xylocopinae (2)	24	119	83
Megachilidae	Megachilinae (12)	12	77	46
Andrenidae	Andreninae (1), Panurginae (5),	6	64	47
Halictidae	Halictinae (6), Nomiinae (2), Rhophitinae (1)	9	62	47
Colletidae	Colletinae (1), Hyalaeinae (1)	2	13	12
Melittidae	Dasypodinae (1)	1	1	1

## Families of Native Bees Collected at 10 Texas Research Sites by Jha Lab Members (2014)

Family / # Species Nest-type	Description (species found at all sites except when specified)
Megachilidae 57, 5 Cavity, 2 Ground	mostly leaf-cutting bees, cavity-nesters, some cuckoos
Halictidae 54, all Ground	mostly sweat bees, ground-nesters, some cuckoos
Apidae 36, 6 Ground, 3 Cavity	bumble bees, hairy-leg bees (ground), Euglossine bees (cavity)
Andrenidae 27, all Ground	(8 sites) andrenid, miner or digger bees, all ground-nesters
Colletidae 8, all Ground	(3 sites) colletid, plasterer, yellow-faced bees (pithy stem cavity nests)
Melittidae 2, all Ground	(1 site) oil-collecting or melittid bees (ground & cavity)

## Native Bee Species Nesting & Foraging Behavior Summary by Laurel Treviño M.

### Ground-Nesters and Preferred Plant Genus/Family

*Agapostemon angelicus*, *A. texanus* (Halictidae): metallic green bees; solitary-ground nester; polylectic  
*Andrena* (Andrenidae): andrenid or mining bees (large aggregations solitary ground-nester), *A. melliventris* on *Gaillardia*, *A. rudbeckiae* on *Rudbeckia/Ratidiba* flowers (Asteraceae)  
*Anthophora californica* (Apidae): hairy legged/mining bee, ground-nester polylectic  
*Ashmeadiella buconis* (Megachilidae): striped hairy belly/tiny leafcutter, solitary-communal, polylectic  
*Augochlora* (Halictidae): metallic green sweat bee, polylectic  
*Augochlorella aurata* (= *A. striata*), *A. metallica* (Halictidae): sweat bee, polylectic  
*Augochloropsis* (Halictidae): metallic green sweat bee, polylectic  
*Bombus griseocollis*, *B. pensylvanicus*, *B. fraternus* (Apidae): social ground-nesters, polylectic  
*Calliopsis andreniformis*, *C. hondurasica* (Andrenidae): miner bee, gregarious ground-nesters, polylectic  
*Centris atripes* (Apidae): oil-collecting bees, polylectic  
*Colletes birkmanni*, *C. mandibularis* (Colletidae): line deep nest plaster/polyester bee solitary ground-nester  
*Diadasia afflicta* (Callirhoe, Malvaceae), *D. enevata* (Asteraceae), *D. rinconis* (Cactaceae) (Apidae): hairy leg/sunflower; solitary ground-nester  
*Dianthidium curvatum*, *D. heterulkei*, *D. texanum* (Megachilidae): carder bee, polylectic  
*Halictus ligatus*, *H. parallelus*, *H. tripartitus* (Halictidae): striped sweat bee, polylectic  
*Hesperapis infuscata* (Melittidae): shaggy hair leg/scopa, oil-collecting, sm-med, oligolectic/Asteracea, solitary  
*Hylaeus fedorica*, *H. floridanus*, *H. modestus* (Colletidae): white-faced bees (pale facial mark)  
*Lasioglossum bardum*, *bruneri*, *callidum*, *coactum*, *connexum*, *disparile* (Halictid): tiny dark bee, polylectic  
*Melissodes communis*, *M. coreopsis*, *M. tepaneca* (Apidae): hairy leg/flower bee  
*Perdita cambarella*, *P. coreopsidis*, *P. ignota*, *P. sexmaculata* (Andrenidae): tiny bees 2mm, *Gaillardia* (Asteraceae)  
*Pseudopanurgus ornatipes*, *P. texanus* (Andrenidae): tiny bees 2mm, Asteraceae  
*Svastra atripes*, *S. cressonii* (polylectic), *S. obliqua* (Aster.), *S. petulca* (Aster.) (Apidae): hairy leg/striped  
*Tetraloniella albata* (Apidae) Asteraceae.

### Cavity or Wood-Nesters and Preferred Plant Genus/Family

*Anthidium* (Megachilidae): mason/potter bees or carder bees (plant hairs)  
*Ceratina calcarata*, *C. shinnersi*, *C. strenua* (Apidae): tiny dark/small carpenter, polylectic  
*Coelioxys texana* (Megachilidae): cuckoo (parasitic Sayapis)  
*Heriades variolosa* (Megachilidae): mason or potter bee, polylectic  
*Hoplitis pilosifrons* (Megachilidae): small, solitary, leaf cutter (some mason)  
*Megachile brevis*, *M. casadae*, *M. inimica*, *M. parallela*, *M. policularis*, *M. pugnata* (Megachilidae): striped hairy belly/leafcutter (some mason), polylectic, (*M. inimica*, *M. parallela* – Asteraceae)  
*Melissodes intorta* (Malvaceae: Callirhoe), *M. tepaneca* (Apidae): hairy leg/flower, polylectic  
*Osmia conjuncta* (poly), *O. georgica* (Aster.), *O. subfasciata* (poly), *O. texana* (Megachilidae): metallic hairy belly/ blue or green leaf cutters & masons  
*Xylocopa virginica texana*, *X. tabaniformis parkinsoniae* (Apidae): large carpenter bees, polylectic

### Parasitic-Nesters:

*Epeolus*, *Triepeolus*, *Nomada*, *Sphecodes*

**Table - Bees of Travis County and BFL-UT Austin, floral host or parasitic specificity, John L. Neff, 2021**  
<https://www.bfl.utexas.edu/research/species-list/insects/hymenoptera>

Taxon	Site	Floral host specificity or parasitic hosts
<b>Apidae- Nomadinae:</b> Large group consisting entirely of nest parasites called cuckoo bees (8 genera, 38 spp.)		
Brachymelecta (Melectomorpha) californica. (Cresson)	BFL	parasitic: Anthophora
Brachynomada aff. grindeliae (Cockerell)		parasitic: Anthophorula?
Epeolus (Epeolus) australis Mitchell	BFL	parasitic: Colletes
Epeolus (Epeolus) compactus Cresson	BFL	parasitic: Colletes
Epeolus (Epeolus) diadematus Onuferko	BFL	parasitic: Colletes
Epeolus (Epeolus) howardi Say	BFL	parasitic: Colletes
Epeolus (Epeolus) inornatus Onuferko	BFL	parasitic: Colletes?
Epeolus (Epeolus) pusillus Cresson	BFL	parasitic: Colletes
Epeolus (Trophocleptria) bifasciatus Cresson	BFL	parasitic: Colletes
Ericrocis lata Cresson	BFL	parasitic: Centris
Holcopasites calliopsidis (Linsley)	BFL	parasitic: Calliopsis
Holcopasites eamia (Cockerell)		parasitic: Pr. (Metapsaenythia)
Holcopasites heliopsis (Robertson)	BFL	parasitic: Pseudopanurgus
Holcopasites spp.	BFL	parasitic: Pseudopanurgus
Melecta (Melecta) pacifica Cresson	BFL	parasitic: Anthophora
Nomada (Holonomada) sp. CS-1 (aff. grandis)	BFL	parasitic
Nomada (Micronomada) garciana Cockerell		parasitic
Nomada (Micronomada) guttierieziae Cockerell	BFL	parasitic: Exomalopsis solani
Nomada (Micronomada) texana Cresson	BFL	parasitic
Nomada (Nomada) lepida		parasitic
Nomada (Nomada) sp.	BFL	par: Andrena crawfordi, A. scotoptera
Nomada (Phelonomada) belfragei Cresson	BFL	parasitic: Andrena rudbeckiae
Nomada (Phelonomada) wheeleri Cockerell		parasitic: Andrena tonkaworum?
Paranomada aff. nitida Linsley & Michener	BFL	parasitic: Exomalopsis solani
Triepeolus concavus (Cresson)	BFL	parasitic: Svastra obliqua
Triepeolus cressonii (Robertson)	BFL	parasitic
Triepeolus dilutus Rightmyer	BFL	parasitic
Triepeolus helianthi (Robertson)	BFL	parasitic
Triepeolus lunatus (Say)	BFL	parasitic: Svastra petulca
Triepeolus nigrihirtus Mitchell	BFL	parasitic:
Triepeolus pencilliferus (Brues)	BFL	parasitic
Triepeolus remigatus (Fabricius)	BFL	parasitic: Peponapis, Xenoglossa
Triepeolus rufoclypeus (Fox)	BFL	parasitic: Melissodes?
Triepeolus scelestus (Cresson)		parasitic
Triepeolus simplex Robertson	BFL	parasitic: Svastra?
Triepeolus subnitens Cockerell & Timberlake	BFL	parasitic
Triepeolus texanus (Cresson)		parasitic: Melissodes
Triepeolus rhodontus Cockerell		parasitic
<b>Apidae - Eucerinae:</b> A diverse group of mainly ground nesting bees (9 genera, 49 spp.)		
Ancyloscelis apiformis (Fabricius)	BFL	Convolvulaceae
Ancyloscelis sejuncta Cockerell		Convolvulaceae
Anthophorula (Anthophorula) completa (Cockerell)		Polylectic
Anthophorula (Anthophorula) compactula (Cockerell)		Polylectic
Anthophorula (Anthophorisca) micheneri (Timberlake)	BFL	Scrophulariaceae: Agalinis
Anthophorula (Anthophorisca) pygmaea (Cresson)		Polylectic
Anthophorula (Anthophorisca) texana (Friese)	BFL	Asteraceae
Diadasia afflicta (Cresson)	BFL	Malvaceae: Callirhoe

Diadasia australis (Cresson)		Cactaceae
Diadasia diminuta (Cresson)	BFL	Malvaceae
Diadasia enavata (Cresson)	BFL	Asteraceae
Diadasia ochracea (Cockerell)	BFL	Malvaceae
Diadasia piercei Cockerell		Cactaceae
Diadasia rinconis rinconis Cockerell	BFL	Cactaceae
Eucera (Peponapis) pruinosa (Say)	BFL	Cucurbitaceae: Cucurbita
Eucera (Synhalonia) belfragei (Cresson)	BFL	Polylectic
Eucera (Synhalonia) chrysobotrae (Cockerell)		Polylectic
Eucera (Synhalonia) speciosa (Cresson)		Polylectic
Eucera (Xenoglossa) kansensis Cockerell	BFL	Cucurbitaceae: Cucurbita
Eucera (Xenoglossa) strenua (Cresson)		Cucurbitaceae: Cucurbita
Eucera (Xenoglossodes) eriocarpi (Cockerell)	BFL	Asteraceae
Eucera (Xenoglossodes) wilmattae (Cockerell)		Asteraceae
Exomalopsis (Stilbomalopsis) solani Cockerell	BFL	Polylectic
Melissodes (Apomelissodes) baileyi Cockerell	BFL	Malvaceae: Callirhoe
Melissodes (Callimelissodes) tuckeri Cockerell		Asteraceae
Melissodes (Eumelissodes) agilis Cresson		Asteraceae
Melissodes (Eumelissodes) bidentis Cockerell	BFL	Asteraceae
Melissodes (Eumelissodes) coreopsis Robertson	BFL	Asteraceae
Melissodes (Eumelissodes) dentiventris Smith	BFL	Asteraceae
Melissodes (Eumelissodes) elegans LaBerge	BFL	Asteraceae
Melissodes (Eumelissodes) tristis Cockerell	BFL	polylectic
Melissodes (Eumelissodes) wheeleri Cockerell		Asteraceae
Melissodes (Heliomelissodes) rivalis Cresson		Asteraceae: Cirsium
Melissodes (Melissodes) bimaculata bimaculata (Lepelletier)	BFL	polylectic
Melissodes (Melissodes) communis communis Cresson	BFL	polylectic
Melissodes (Melissodes) comptoides Robertson		polylectic
Melissodes (Melissodes) tepaneca Cresson	BFL	polylectic
Melissodes (Psilomelissodes) intorta Cresson	BFL	Malvaceae: Callirhoe
Melissoptila otomita (Cresson)		Malvaceae?
Melitoma marginella (Cresson)	BFL	Convolvulaceae
Ptilothrix bombiformis (Cresson)		Malvaceae: Hibiscus
Svastra (Brachymelissodes) cressonii (Dalla Torre)	BFL	polylectic
Svastra (Epimelissodes) atripes atripes (Cresson)	BFL	polylectic
Svastra (Epimelissodes) commanche (Cresson)		Asteraceae
Svastra (Epimelissodes) grandissima (Cockerell)		Asteraceae: Verbesina?
Svastra (Epimelissodes) obliqua obliqua (Say)	BFL	Asteraceae
Svastra (Epimelissodes) petulca petulca (Cresson)	BFL	Asteraceae
Svastra (Epimelissodes) sabinensis laterufa (Cockerell)		Asteraceae
Svastra (Epimelissodes) texana (Cresson)		Asteraceae
<b>Apidae - Anthophorinae:</b> A small clade of ground nesting bees (2 genera, 7 spp.)		
Anthophora (Anthophoroides) californica Cresson	BFL	polylectic
Anthophora (Lophanthophora) affabilis Cresson		Onagraceae: Oenothera
Anthophora (Lophanthophora) fedorica Cockerell		polylectic
Anthophora (Melea) abrupta Say	BFL	polylectic
Anthophora (Melea) occidentalis Cresson	BFL	polylectic
Anthophora (Mystacanthophora) capistrata Cresson	BFL	polylectic
Habropoda laboriosa (Fabricius)		Polylectic: prefers Vaccinium
<b>Apidae - Apinae</b> (3 genera, 8 spp.)		
Apis (Apis) mellifera Linnaeus	BFL	social, polylectic (introduced)
Bombus (Cullumanobombus) griseocollis (Degeer)	BFL	social, polylectic
Bombus (Fervidobombus) pensylvanicus (Degeer)	BFL	social, polylectic

Bombus ( <i>Fervidobombus</i> ) <i>sonorus</i> Say	BFL	social, polylectic
Bombus ( <i>Fraternobombus</i> ) <i>fraternus</i> (Smith)	BFL	social, polylectic
Bombus ( <i>Psithyrus</i> ) <i>variabilis</i> (Cresson)	BFL	social parasite: Bombus
Centris ( <i>Paracentris</i> ) <i>atripes</i> Mocsary	BFL	polylectic, oil collecting
Centris ( <i>Paracentris</i> ) <i>lanosa</i> Cresson	BFL	polylectic, oil collecting
<b>Apidae - Xylocopinae</b> (2 genera, 19 spp.)		
Ceratina ( <i>Calloceratina</i> ) <i>cobaltina</i> Cresson	BFL	polylectic
Ceratina ( <i>Ceratina</i> ) <i>cockerelli</i> Smith	BFL	polylectic
Ceratina ( <i>Zadontomerus</i> ) <i>diodonta</i> Smith	BFL	polylectic
Ceratina ( <i>Zadontomerus</i> ) <i>calcarata</i> Robertson	BFL	polylectic
Ceratina ( <i>Zadontomerus</i> ) <i>shinnersi</i> Daly	BFL	polylectic
Ceratina ( <i>Zadontomerus</i> ) <i>strenua</i> Smith	BFL	polylectic.
Xylocopa ( <i>Neoxylocopa</i> ) <i>mexicanorum</i> Cockerell	BFL	polylectic
Xylocopa ( <i>Notoxylocopa</i> ) <i>tabaniformis parkinsoniae</i> Cockerell	BFL	polylectic
Xylocopa ( <i>Schoenherria</i> ) <i>micans</i> Lepeletier	BFL	polylectic
Xylocopa ( <i>Xylocopoides</i> ) <i>virginica texana</i> (Cresson)	BFL	polylectic
<b>Megachilidae - Megachilinae</b> (12 genera, 75 spp.)		
Anthidiellum ( <i>Loyolanthidium</i> ) <i>gilense</i> (Cockerell)	BFL	Polylectic
Anthidiellum ( <i>Loyolanthidium</i> ) <i>notatum notatum</i> (Latreille)	BFL	Polylectic
Anthidium ( <i>Anthidium</i> ) <i>maculifrons</i> Smith		polylectic?
Anthidium ( <i>Anthidium</i> ) <i>palmarum</i> Cockerell		polylectic?
Ashmeadiella ( <i>Ashmeadiella</i> ) <i>bucconis buconis</i> (Say)		Polylectic
Ashmeadiella ( <i>Ashmeadiella</i> ) <i>cactorum</i> (Cockerell)		Polylectic
Ashmeadiella ( <i>Ashmeadiella</i> ) <i>maxima</i> Michener		Polylectic
Coelioxys ( <i>Acrocoelioxys</i> ) <i>azteca</i> Cresson	BFL	parasitic: Megachile?
Coelioxys ( <i>Boreocoelioxys</i> ) <i>insita</i> Cresson	BFL	parasitic: Megachile
Coelioxys ( <i>Boreocoelioxys</i> ) <i>octodentata</i> Say	BFL	parasitic: Megachile
Coelioxys ( <i>Boreocoelioxys</i> ) <i>rufitarsis</i> Smith		parasitic: Megachile
Coelioxys ( <i>Boreocoelioxys</i> ) <i>sayi</i> Robertson	BFL	parasitic: Megachile
Coelioxys ( <i>Coelioxys</i> ) <i>hirsutissima</i> Cockerell	BFL	parasitic: Megachile
Coelioxys ( <i>Cyrtocoelioxys</i> ) <i>scitula?</i> Cresson	BFL	parasitic: Megachile ( <i>Chelostomoides</i> )
Coelioxys ( <i>Haplocoelioxys</i> ) <i>mexicana</i> Cresson	BFL	parasitic: Megachile
Coelioxys ( <i>Neocoelioxys</i> ) <i>slossoni</i> Viereck		parasitic: Megachile
Coelioxys ( <i>Synocoelioxys</i> ) <i>apacheorum</i> Cockerell	BFL	parasitic: Megachile ( <i>Sayapis</i> )
Coelioxys ( <i>Synocoelioxys</i> ) <i>hunteri</i> Crawford	BFL	parasitic: Megachile ( <i>Sayapis</i> )
Coelioxys ( <i>Synocoelioxys</i> ) <i>texana</i> Cresson	BFL	parasitic: Megachile ( <i>Sayapis</i> )
Coelioxys ( <i>Xerocoelioxys</i> ) <i>bisoncornua</i> Hill	BFL	parasitic: Megachile ( <i>Phaenosarus</i> )
Coelioxys ( <i>Xerocoelioxys</i> ) <i>edita</i> Cresson	BFL	parasitic: Megachile
Dianthidium ( <i>Adanthidium</i> ) <i>texanum</i> (Cresson)	BFL	Polylectic
Dianthidium ( <i>Dianthidium</i> ) <i>curvatum</i> (Smith)		polylectic?
Dianthidium ( <i>Dianthidium</i> ) <i>heterulkei fraternum</i> Timberlake		polylectic?
Dianthidium ( <i>Dianthidium</i> ) <i>subrufulum</i> Timberlake		Asteraceae
Heriades ( <i>Neotrypetes</i> ) <i>carinata</i> Cresson		Polylectic
Heriades ( <i>Neotrypetes</i> ) <i>leavitti</i> Crawford		Polylectic
Heriades ( <i>Neotrypetes</i> ) <i>texana</i> Michener		Asteraceae?
Heriades ( <i>Neotrypetes</i> ) <i>variolosa variolosa</i> (Cresson)	BFL	Polylectic
Hoplitis ( <i>Alcidamea</i> ) <i>producta producta</i> (Cresson)	BFL	Polylectic
Hoplitis ( <i>Andronicus</i> ) <i>spoliata</i> (Provancher)		Polylectic
Hoplitis ( <i>Robertsonella</i> ) <i>nemophilae</i> Neff		Boraginaceae: <i>Nemophila</i> , <i>Phacelia</i>
Hoplitis ( <i>Robertsonella</i> ) <i>simplex</i> (Cresson)	BFL	Boraginaceae: <i>Nemophila</i> , <i>Phacelia</i>
Lithurgus ( <i>Lithurgopsis</i> ) <i>gibbosus</i> Smith	BFL	Cactaceae
Lithurgus ( <i>Lithurgopsis</i> ) <i>littoralis</i> Cockerell		Cactaceae
Megachile ( <i>Acentron</i> ) <i>albitarsis</i> Cresson	BFL	Polylectic

Megachile (Argyropile) parallela Smith	BFL	Asteraceae
Megachile (Callomegachile) sculpturalis Smith		polylectic (introduced)
Megachile (Chelostomoides) exilis Cresson	BFL	Polylectic
Megachile (Chelostomoides) georgica Cresson	BFL	Polylectic
Megachile (Chelostomoides) prosopidis Cockerell	BFL	Polylectic
Megachile (Chelostomoides) rugifrons (Smith)		Polylectic
Megachile (Eutricharea) pusilla Perez	BFL	polylectic
Megachile (Litomegachile) brevis Say	BFL	Polylectic
Megachile (Litomegachile) gentilis Cresson		Polylectic
Megachile (Litomegachile) lippiae Cockerell		Polylectic
Megachile (Litomegachile) mendica Cresson	BFL	Polylectic
Megachile (Litomegachile) texana Cresson	BFL	Polylectic
Megachile (Megachile) montivaga Cresson		polylectic?
Megachile (Megachiloides) chomskyi Sheffield	BFL	Onagraceae: Oenothera
Megachile (Megachiloides) casadae Cockerell	BFL	Cactaceae
Megachile (Megachiloides) dakotensis Mitchell		Unknown
Megachile (Megachiloides) deflexa Cresson		Polylectic
Megachile (Megachiloides) mucorosa Cockerell		polylectic?
Megachile (Megachiloides) parksi Mitchell		Unknown
Megachile (Megachiloides) soledadensis Cockerell	(*)	Unknown
Megachile (Melanosarus) xylocopoides Smith	BFL	Polylectic
Megachile (Pseudocentron) pruina nigropinguis Mitchell		polylectic?
Megachile (Phaenosarus) fortis Cresson	BFL	Asteraceae: Helianthus
Megachile (Sayapis) inimica inimica Cresson	BFL	Asteraceae
Megachile (Sayapis) polycaris Say	BFL	Polylectic
Megachile (Xanthosarus) comata Cresson	BFL	Polylectic
Osmia (Helicosmia) georgica Cresson	BFL	Asteraceae?
Osmia (Helicosmia) chalybea Smith	BFL	Asteraceae
Osmia (Diceratosmia) marilaunidii Cockerell		polylectic?
Osmia (Diceratosmia) conjuncta Cresson	BFL	Polylectic
Osmia (Diceratosmia) subfasciata Cresson	BFL	Polylectic
Osmia (Osmia) lignaria lignaria Say	BFL	Polylectic
Osmia (Osmia) ribifloris ribifloris Cockerell	BFL	Polylectic
Stelis (Dolichostelis) costalis Cresson	BFL	Parasitic
Stelis (Heterostelis) texana (Thorp)	(*)	parasitic: Trachusa
Stelis (Stelis) diversicolor Crawford		parasitic: Osmia?
Stelis (Stelis) lateralis Cresson	BFL	parasitic: Hoplitis (Alcidamea)
Trachusa (Heteranthidium) cordaticeps (Michener)	BFL	Asteraceae
Trachusa (Heteranthidium) zebrata (Cresson)		Asteraceae?
<b>Andrenidae - Andreninae (1 genus, 34 spp.)</b>		
Andrena (Andrena) macoupsensis Robertson	BFL	polylectic/Salix?
Andrena (Belandrena) sagittagalea Ribble	BFL	Hydrophyllaceae: Nemophila, Phacelia
Andrena (Callandrena-B) afimbriata LaBerge		Asteraceae: Pyrrhopappus
Andrena (Callandrena) biscutellata Viereck		Asteraceae: Heliantheae
Andrena (Callandrena-B) crawfordi Viereck	BFL	Asteraceae: Pyrrhopappus
Andrena (Callandrena-B) fulvipennis Smith	BFL	Asteraceae: Astereae
Andrena (Callandrena) gardineri Cockerell		Asteraceae: Senecio
Andrena (Callandrena-B) melliventris Cresson	BFL	Asteraceae: Gaillardia
Andrena (Callandrena) reflexa Cresson	BFL	Asteraceae: Rudbeckia/Ratibida
Andrena (Callandrena-B) sitiliae Viereck	BFL	Asteraceae: Pyrrhopappus
Andrena (Callandrena-B) rudbeckiae Robertson	BFL	Asteraceae: Rudbeckia/Ratibida
Andrena (Callandrena-B) tonkaworum Viereck		Asteraceae: Engelmannia
Andrena (Callandrena-B) verecunda Cresson	BFL	Asteraceae: Pyrrhopappus
Andrena (Gonandrena) avulsa LaBerge & Ribble	BFL	polylectic

Andrena (Gonandrena) platyparia Robertson	BFL	Cornaceae: Cornus
Andrena (Holandrena) cressonii cressonii Robertson	BFL	polylectic
Andrena (Larandrena) miserabilis Cresson	BFL	polylectic
Andrena (Melandrena) dollomellea Lanham	BFL	polylectic
Andrena (Melandrena) commoda Smith	BFL	polylectic
Andrena (Melandrena) illini? Robertson	BFL	polylectic
Andrena (Micrandrena) illinoiensis Robertson	BFL	polylectic
Andrena (Micrandrena) neonana Viereck		polylectic
Andrena (Micrandrena) nigrae Robertson	BFL	polylectic
Andrena (Micrandrena) personata Robertson		polylectic
Andrena (Rhacandrena) coruscata LaBerge		?
Andrena (Scaphandrena) primulifrons Casad	BFL	Brassicaceae: Physaria
Andrena (Scrapteropsis) ilicis Mitchell	BFL	polylectic
Andrena (Scrapteropsis) imitatrix Cresson	BFL	polylectic
Andrena (Simandrena) nasonii Robertson		polylectic
Andrena (Trachandrena) forbesii Robertson	BFL	polylectic
Andrena (Trachandrena) hippotes Robertson	BFL	polylectic?
Andrena (Tylandrena) jessicae Cockerell	BFL	polylectic
Andrena (Tylandrena) perplexa Smith	BFL	polylectic
Andrena (Tylandrena) scotoptera Cockerell	BFL	polylectic
<b>Andrenidae - Panurginae (5 genera, 32 spp.)</b>		
Calliopsis (Calliopsis) coloradensis Cresson	BFL	Asteraceae
Calliopsis (Calliopsis) hondurasica Cockerell	BFL	polylectic
Calliopsis (Hypomacrotera) callops (Cockerell & Porter)	BFL	Solanaceae: Physalis
Macrotera (Macrotera) texana Cresson	BFL	Cactaceae
Panurginus polytrichus Cockerell		polylectic
Perdita (Cockerellia) shinneri Timberlake		Asteraceae
Perdita (Cockerellia) albipennis albipennis Cresson	BFL	Asteraceae: Helianthus
Perdita (Cockerellia) coreopsidis coreopsidis Cockerell	BFL	Asteraceae: Gaillardia
Perdita (Cockerellia) perpulchra punctatissima Timberlake		Asteraceae: Astereae
Perdita (Hexaperdita) bishoppi planorum Timberlake		Asteraceae: Astereae
Perdita (Hexaperdita) foveata brachycephala Timberlake		Asteraceae: Astereae
Perdita (Hexaperdita) ignota isopappi Timberlake	BFL	Asteraceae: Astereae
Perdita (Hexaperdita) xanthisma Cockerell		Asteraceae: Astereae
Perdita (Pentaperdita) nigroviridis Timberlake	BFL	Asteraceae: Heliantheae
Perdita (Perdita) beameri Timberlake		Solanaceae: Chamaesaracha
Perdita (Perdita) maculigera Graenicher	BFL	polylectic-emph. Salix
Perdita (Perdita) sexmaculata Cockerell	BFL	Solanaceae: Chamaesaracha
Protandrena (Anthemurgus) albitarsis (Cresson)	BFL	Asteraceae
Protandrena (Anthemurgus) passiflora (Robertson)	BFL	Passifloraceae: Passiflora
Protandrena (Heterosarus) illinoiensis (Cresson)	BFL	Asteraceae: Astereae
Protandrena (Heterosarus) n. sp. "ladybirdi"		Lamiaceae: Warnockia
Protandrena (Metapsaenythia) abdominalis abdominalis (Fox)	BFL	Lamiaceae: Monarda
Protandrena (Pseudopanurgus) aethiops (Cresson)	BFL	Asteraceae
Protandrena (Pseudopanurgus) rugosa (Robertson)	BFL	Asteraceae
Protandrena (Pseudopanurgus) texana (Timberlake)	BFL	Asteraceae
Protandrena (Protandrena) bancrofti Dunning	BFL	polylectic
Protandrena (Pterosarus) muesebecki (Michener)	BFL	Asteraceae: Astereae
Protandrena (Pterosarus) ornatipes (Cresson)	BFL	Asteraceae
Protandrena (Pterosarus) spp.	BFL	Asteraceae: Heliantheae
Protandrena (Pseudopanurgus) aethiops (Cresson)	BFL	Asteraceae
Protandrena (Pseudopanurgus) rugosa (Robertson)	BFL	Asteraceae
Protandrena (Pseudopanurgus) texana (Timberlake)	BFL	Asteraceae



**Halictidae - Halictinae** (6 genera, 44 spp.)

Agapostemon (Agapostemon) angelicus Cockerell	BFL	polylectic
Agapostemon (Agapostemon) melliventris Cresson	BFL	polylectic
Agapostemon (Agapostemon) texanus Cresson	BFL	polylectic
Agapostemon (Notagapostemon) leunculus Vachal	BFL	polylectic
Augochlora (Augochlora) pura (Say)		polylectic
Augochlorella aurata (Smith)	BFL	polylectic
Augochlorella bracteata Ordway		polylectic
Augochlorella karankawa Coelho	BFL	polylectic
Augochloropsis (Paraugochloropsis) metallica (Fabricius)	BFL	polylectic
Halictus (Odontolictus) ligatus Say	BFL	polylectic
Halictus (Nealictus) parallelus Say	BFL	polylectic
Halictus (Seladonia) tripartitus Cockerell	BFL	polylectic
Lasioglossum (Dialictus) arenisaltans Gardner & Gibbs	BFL	polylectic
Lasioglossum (Dialictus) bruneri (Crawfordi)	BFL	polylectic
Lasioglossum (Dialictus) callidum (Sandhouse)	BFL	polylectic
Lasioglossum (Dialictus) coactum (Cresson)	BFL	polylectic
Lasioglossum (Dialictus) connexum (Cresson)	BFL	polylectic
Lasioglossum (Dialictus) cressoni (Robertson)		polylectic
Lasioglossum (Dialictus) disparile (Cresson)	BFL	polylectic
Lasioglossum (Dialictus) hudsoniellum (Cockerell)	BFL	polylectic
Lasioglossum (Dialictus) hunteri (Crawford)	BFL	polylectic
Lasioglossum (Dialictus) illinoense (Cresson)	BFL	polylectic
Lasioglossum (Dialictus) imitatum (Smith)	BFL	polylectic
Lasioglossum (Dialictus) longifrons (Baker)		polylectic
Lasioglossum (Dialictus) semicaeruleum (Cockerell)	BFL	polylectic
Lasioglossum (Dialictus) spp. (Eickwort)	BFL	polylectic
Lasioglossum (Dialictus) tegulare (Robertson)		polylectic
Lasioglossum (Dialictus) zephyrum (Smith)	BFL	polylectic
Lasioglossum (Hemihalictus) birkmanni (Crawford)	BFL	polylectic?
Lasioglossum (Hemihalictus) fedorense (Crawford)		Polylectic?
Lasioglossum (Hemihalictus) lustrans (Cresson)	BFL	Asteraceae: Pyrrhopappus
Lasioglossum (Hemihalictus) nelumbonis (Robertson)		polylectic?
Lasioglossum (Hemihalictus) pectorale (Smith)	BFL	polylectic
Lasioglossum (Hemihalictus) sopinci (Robertson)		polylectic
Lasioglossum (Hemihalictus) spp.	BFL	polylectic
Lasioglossum (Lasioglossum) bardum (Cresson)	BFL	polylectic
Lasioglossum (Lasioglossum) morrilli (Cockerell)	BFL	polylectic
Lasioglossum (Sphecodogastra) lusorium (Cresson)	BFL	Onagraceae: Oenothera
Lasioglossum (Sphecodogastra) texanum (Cresson)		Onagraceae: Oenothera
Sphecodes (Arctosphecodes) minor Robertson	BFL	parasitic
Sphecodes (Arctosphecodes) heraclei Robertson	BFL	parasitic
Sphecodes (Sphecodium) manni Cockerell	BFL	parasitic
Sphecodes (Sphecodium) stygius Robertson	BFL	parasitic
Sphecodes (Sphecodium) spp. (Arduser)	BFL	parasitic

**Halictidae - Nomiinae** (2 genera, 4 spp.)

Dieunomia (Dieunomia) heteropoda heteropoda (Say)	BFL	Asteraceae
Dieunomia (Epinomia) nevadensis bakeri (Cockerell)		Asteraceae
Dieunomia (Epinomia) micheneri Cross	BFL	Asteraceae
Nomia (Acunomia) nortoni nortoni Cresson	BFL	polylectic

**Halictidae - Rhophitinae** (1 genus, 1 sp.)

Sphecodosoma (Sphecodosoma) pratti Crawford		Hydrophyllaceae: Nama
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**Colletidae - Colletinae** (1 genus, 10 spp.)

Colletes birkmanni Swenk	BFL	polylectic
Colletes brevicornis Robertson	BFL	Campanulaceae: Specularia polylectic?
Colletes intermixtus Swenk	BFL	Sapotaceae: Sideroxylon
Colletes inuncantipedis Neff	BFL	Solanaceae: Physalis
Colletes latitarsis Robertson	BFL	Asteraceae
Colletes mandibularis Smith	BFL	Asteraceae
Colletes mitchelli Stephen	BFL	Solanaceae: Chamaesaracha
Colletes scopiventer Swenk	BFL	Solanaceae: Chamaesaracha
Colletes swenki Stephen	BFL	Solanaceae: Physalis
Colletes texanus texanus Cresson		

**Colletidae - Hylaeinae** (1 genus, 3 spp.)

Hylaeus (Hylaeus) fedorica (Cockerell)	BFL	polylectic
Hylaeus (Paraprosopis) aff. floridanus (Robertson)	BFL	polylectic
Hylaeus (Prosopis) modestus Say	BFL	polylectic

**Melittidae - Dasypodainae** (1 genus, 1 sp.)

Hesperapis (Carinapis) infusata Engel & Michez	BFL	Asteraceae
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**Additional References (L. Trevino M.):**

**ITIS Bee Checklist** (World Bee Checklist by Michael Ruggiero, United States)

<http://www.itis.gov/beechecklist.html>

**Bee Basics – Intro to Native Bees**

[http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5306468.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5306468.pdf)

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<http://bugguide.net/node/view/475348>