A Checklist of Texas Ants

George C. Wheeler1 and Jeanette Wheeler2

ABSTRACT — A list of 210 species of ants found in Texas is based primarily on the literature but includes 11 species and 118 county records from the authors' collection. The distribution within the state and the Vegetational Area is given for each species.

Texas is BIG, not only in jokes and stories, but also in fact, and biologists would do well to take that fact into account before undertaking any study involving its biota. A very good way to appreciate that fact is to drive across the state — 16 hours according to highway maps. A less tedious way is to study a map: roughly 700 miles north to south and 800 east to west; 10° of latitude, 13° of longitude. In area it is the largest of the 48 states; it has 1½ times the area of California, the second largest state. Any area of such size and shape is bound to exhibit biological complexity. For example, the climate ranges from continental in the Panhandle to subtropical at the southern tip and from humid along the eastern border to desert in the west.

As our starting point for this list we used Smith's 1936 checklist. To this we added every record we have found in the literature and all new records (marked with an asterisk) from our own collection. The result is 210 species based on the records of 92 bibliographic cards plus 11 additional species and 118 new county records from our own collection.

Our fieldwork has been done in 14 counties: central — Bexar, Llano, McLennan, Travis; northeastern — Cass, Fannin, Grayson, Morris; eastern — Polk, Tyler; southern — Cameron, Hidalgo; western — Brewster, Culberson. It has yielded 474 records; in addition our collection contains specimens presented to us by A. C. Cole, W. S. Creighton, J. V. Moody, and W. M. Wheeler.

HISTORICAL NOTES

Texas is of special interest to myrmecologists, because it was here that William Morton Wheeler became interested in ants.

When I took up my work at the University of Texas in the fall of 1899 as a morphologist accustomed to well-furnished northern and European embryological and anatomical laboratories and libraries, I found so little apparatus for the work in which I had been trained, that I fell into a peculiar listlessness and was for some weeks unable to concentrate my attention on any subject that seemed worthy of investigation. One day, while I sat on the bank of Barton Creek, near Austin, in the very spot where, as I later learned, MacCook had worked on the famous agricultural ant (Pogonomyrmex molefaciens), I happened to see a file of cutting ants (Atta texana), each with its piece of leaf poised in its mandibles. I vividly remember the thrill of delightful fascination with which I watched the red-brown creatures trudging along under their green loads, and it seemed to me that I had at last found a group of organisms that would repay no end of study. (Wheeler 1918:294-295.)

¹University Professor Emeritus, University of North Dakota, Grand Forks, North Dakota. Present address: 326 Laurel Ridge Road, San Antonio, Texas 78253.

²Adjunct Research Associate, Desert Research Institute, University of Nevada System, Reno, Nevada. Present address: 326 Laurel Ridge Road, San Antonio, Texas 78253.

Wheeler's first five papers on ants were published in 1900; four of them dealt with Texan species. He left Texas in 1903 but continued the study of ants until his death in 1937.

The type localities for one genus, 75 species, and 10 subspecies are located in Texas. Wheeler is the author of 42 of these species and 8 of the subspecies. For half of the species and all of the subspecies the type locality was Austin (or Travis County).

COMPARATIVE NOTES

To us it is interesting to compare the ant fauna of Texas and North Dakota for two reasons: 1) North Dakota is the most northern state directly north of most of Texas and 2) we have studied the North Dakota fauna intensively. Of course Texas has more species, but only 2.4 times as many. [The difference would probably be greater, if Texas had been studied as intensively as North Dakota.] Considering the greater advantages of Texas the differences should be much greater; 1) Texas area is nearly four times as large; 2) the latitude; 3) the topography (North Dakota has no relief greater than 700 ft., Texas has mountains); 4) flora (North Dakota has 1143 species; Texas, 4839). See Table 1.

Table 1. Comparison of the ant faunas of Texas and North Dakota.

Subfamily	Tr	ibes	Ge	nera	Species	
	Texas	N. Dak.	Texas	N. Dak.	Texas	N. Dak.
Ponerinae	6	1	10	1	14	1
Cerapachyinae	2	_	2	_	3	_
Dorylinae	1	_	3	_	17	_
Pseudomyrmecinae	1	_	1		5	
Myrmicinae	12	5	25	10	117	23
Dolichoderinae	1	2	5	4	8	5
Formicinae	3	3	9	7	46	58
TOTALS	26	11	55	22	210	87

Then there are some qualitative differences worth noting. The commonest genus in North Dakota is Formica, both in species (34) and in individuals. In fact we have called the state Formicaland. In second and third places stand Lasius with eight species and Myrmica with six. In contrast Texas has eight species of Formica, none of which can be called common or widely distributed in the state. F. perpilosa has been recorded from five counties, F. pallidefulva from eight, F. schaufussi from five, F. gnava from eight, F. neorufibarbis from two (one record in each), F. neogagates, F. neoclara and F. puberula each with one record in one county. For Lasius there is only one record for the state. For Myrmica

there are three records in two counties for two species.

It is not surprising that Texas should lead in the tropical subfamilies Ponerinae, Cerapachyinae, Dorylinae and Pseudomyrmecinae. What is unexpected is the large number of seed-harvesters: *Pogonomyrmex* 10 species; *Ephebomyrmex* 1; *Pheidole* 34. North Dakota's harvesters include one species of *Pogonomyrmex*, one of *Veromessor* and two of *Pheidole*. See Tables 1 and 2.

Table 2. Comparison of the ant faunas of the World, the Nearctic Realm and Texas.

Subfamily	Tribes			Genera			Species		
	World	Nearctic	Texas	World	Nearctic	Texas	World?	Nearctic	Texas
Myrmeciinae	2	_	_	2	_	_	97		_
Ponerinae	10	6	6	52	13	10	530	25	14
Cerapachyinae	2	2	2	6	2	2	64	3	3
Dorylinae	3	1	1	. 7	3	3	155	26	17
Leptanillinae	1		_	4		_	19	_	_
Pseudomyrmecinae	1	1	1	4	1	1	146	5	5
Myrmicinae	25	13	12	147	36	25	2000	313	117
Aneuretinae	1	_	_	1	_	_	1	_	_
Dolichoderinae	4	2	1	22	6	5	230	18	8
Formicinae	12	6	3	48	13	9	1400	194	46
TOTALS	61	30	26	293	74	55	4642	584	210

GEOGRAPHIC DISTRIBUTION

In any treatment involving the state of Texas as a whole (or even half of it) we consider it futile to use locality records: they are too numerous and too difficult to locate. We prefer to cite records by county only. But there are 254 counties in Texas, which means that even counties may be difficult to locate. The official highway travel map, published every year by the State Department of Highways and Public Transportation, gives an alphabetical list of counties and locates them on the map by a grid system, but the county names and boundaries are faintly printed. An easier procedure is to be found in Webster's Geographical Dictionary: all counties are listed alphabetically and the location given; a two-page map emphasizes county names and outlines.

We divide the state into nine roughly delimited regions: central plus the eight major compass directions in clockwise order. We have prepared a list of species for each region, but we are not including it; only the number of species is given: —

Central	100	East	24	Southwest	41
North	32	Southeast	25	West	97
Northeast	52	South	83	Northwest	55

These data support the principle that the ant family prefers warmth and aridity. The smallest number is in the humid east; the highest two are in the regions which are warm and semi-arid or arid.

ECOLOGICAL DISTRIBUTION

We found the biome system (Odum 1971) satisfactory for North Dakota, southern California, and Nevada, but we cannot apply it to Texas: Odum's map is not clear enough. So we have adopted Gould's Vegetational Areas (Fig. 1). The following brief descriptions of the 10 Areas are condensed from Gould's descriptions (1975:10-14).

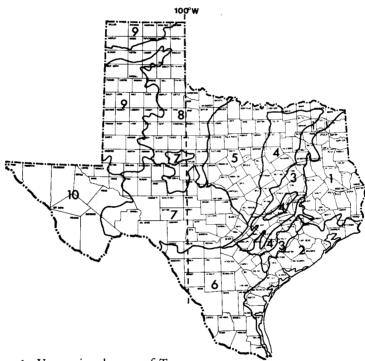


Figure 1. Vegetational areas of Texas.

- 1. Pineywoods
- 2. Gulf Prairies
- 3. Post Oak Savannah
- 4. Blackland Prairies
- 5. Cross Timbers and Prairies
- 6. South Texas Plains
- 7. Edwards Plateau
- 8. Rolling Plains
- 9. High Plains
- 10. Trans-Pecos, Mountains and Basins

1. Pineywoods

Topography: gently rolling to hilly. Elevation 200-500 ft. Rainfall 35-55 in./yt. Humidity and temperature high. The southeastern part is the western limit of a band of forest that extends to South Carolina. The characteristic tree of this region is the longleaf pine (Pinus palustris). The undisturbed forest is carpeted with grass and low herbs and has practically no woody undergrowth. The Area also includes part of the loblolly pine (Pinus taeda) forest, which reaches its climax in the Big Thicket in Hardin County. Tupelo (Nyssa spp.) and bald cypress (Taxodium distichum) are to be found in the swamps. The river bottom forests are characterized by hickories (Carya spp.), oaks (Quercus spp.), beech (Fagus grandifolia), river birch (Betula nigra), magnolia (Magnolia grandiflora), and sweetgum (Liquidambar styraciflua). The northern and western parts of the Pinuswoods Area are the western terminus of the deciduous forest which is characteristic of the Mississippi Valley. The characteristic trees are the shortleaf pine (Pinus echinata), post oak (Quercus stellata), southern red oak (Q. falcata), white oak (Q. alba), hickories (Carya spp.), maples (Acer spp.), beech (F. grandifolia), ash (Fraxinus spp.), and elm (Ulmus spp.). This Area abounds in showy wildflowers especially in spring and autumn.

2. Gulf Prairies

Topography: a nearly level, poorly drained plain with slowly permeable soils. Elevation: less than 150 ft. Rainfall 20 in./yr. in the west and 50 in./yr. in the east. The climax vegetation is tall-grass prairie. The principal climax plants are tall bunch grasses, such as big bluestem (Andropogon gerardi). Much of the Area, however, has been invaded by trees and brush such as mesquite (Prosopis glandulosa), oaks Quercus spp.), pricklypear (Opuntia spp.), and acacias (Acacia spp.).

3. Post Oak Savannah

Topography: gently rolling to hilly. Elevation: 300-800 ft. Rainfall 35-45 in. Ecologists have not decided whether this Area belongs to the deciduous forest formation or the grassland formation. The overstory is chiefly post oak (*Quercus stellata*) and blackjack oak (*Q. marilandica*); the understory is typically tall-grass.

4. Blackland Prairies

Topography: gently rolling to nearly level, with rapid surface drainage. Elevation 300-800 ft. Rainfall: 30 in. in the west to 40 in. in the east. This is true prairie with little bluestem (Andropogon scoparius) as a climax dominant.

5. Cross Timbers and Prairies

Topography: rolling to hilly, deeply dissected and with rapid surface drainage. Elevation 700-1000 ft. Rainfall 25-40 in. This Area is made up of the East Cross Timbers, the West Cross Timbers, the Grand Prairie, and the North Central Prairies. The Cross Timbers range from open savannah to dense brush, mostly post oak (*Quercus stellata*) and blackjack oak (*Q. marilandica*), with grasses as a climax understory. The prairies are, of course, grassland, but they have been invaded by brush.

6. South Texas Plains

Topography: level to rolling. Elevation: 20-1000 ft. Rainfall is 16-35 in., increasing from west to east; periodic droughts. "This area originally supported a grassland or savannah type climax vegetation. Long continued grazing and other factors have altered the plant communities to such a degree that ranchmen of the region now face a severe brush problem. Many species of trees and shrubs have increased in the area, including mesquite, post and live oak (Quercus virginiana), cacti and several acacias." (Gould 1975). In the extreme southern part of the Rio Grande Valley are small groves of native palm (Sabal texana) and in the adjacent brush are shrub, vines, and herbs which are related to a more southern flora.

7. Edwards Plateau

Topography: the surface is rough and well drained being dissected by several river systems. On the east and south the maturely eroded Balcones Escarpment forms a distinct boundary, but on

the north and west the Plateau interdigitates into other Areas. Elevation 1000 ft. on the east to 3000 on the west. Rainfall: 14-34 in.; droughts are frequent. The overstory consists of live oak (*Quercus virginiana*), shinnery oak (*Q. harvardii*), juniper (*Juniperus ashet*), and mesquite (*Prosopis glandulosa*); the understory is tall- or mid-grass.

8. Rolling Plains

This Area is part of the Great Plains Region of the central United States. Topography: gently rolling to moderately rough. Elevation: 800-3000 ft. Rainfall: 22 in. in the west to 30 in. in the east; there is a summer dry period with high temperatures and high evaporation rates. The original prairie vegetation was tall- and mid-grasses. Mesquite (*Prosopis glandulosa*) is a common invader.

9. High Plains

This Area (also known as the Staked Plains or Llano Estacado) is likewise part of the Great Plains. Areas 8 and 9 form the Texan Panhandle. Topography: a relatively level high plateau separated from the Rolling Plains by the Cap Rock Escarpment. Elevation: 3500-4000 ft. Rainfall: 15-21 in.; extended droughts have occurred. The vegetation is mixed-prairie or short-grass prairie. Characteristically this Area is free from brush and trees, but there have been some invasions.

10. Trans-Pecos, Mountains and Basins

This is not really a Vegetational Area but a group of areas that ecologists allegedly could not classify, varying from desert valleys and plateaus to wooded mountain slopes and summits. Elevation: 2500 to more than 8500 ft. Rainfall: 8-16 in., increases with elevation.

Most of the Area is Chihuahuan Desert, which is one of the major subdivisions of the North American Hot Desert. The best plant indicators are creosote bush (*Larrea tridentata*), lechuguilla (*Agave lechuguilla*), narrow-leaved sotol (*Dasylirion wheelen*), barrel cactus (*Echinocactus wislizenii*), and ocotillo (*Fouquieria splendens*). Honey mesquite (*Prosopis glandulosa*) is common on dunes and in low flats and slopes.

Three isolated areas of semidesert coniferous forest are represented by the Guadalupe, Davis, and Chisos Mountains. Characteristic trees are western yellow pine (*Pinus ponderosa*), pinyon (*P. edulis*), Rocky Mountain juniper (*Juniperus scopulorum*), mountain white oak (*Quercus grisea*), and mountain maple (*Acer grandidentatum*).

ECOLOGICAL SUMMARY

We have prepared lists of the ant species recorded from each Vegetational Area of the state as adapted from Gould 1975. It would require too much space to publish the lists, but the numbers are given below.

1. Pineywoods	39	6. South Texas Plains	80
2. Gulf Prairies	66	7. Edwards Plateau	100
3. Post Oak Savannah	72	8. Rolling plains	51
4. Blackland Prairies	103	9. High Plains	44
5. Cross Timbers and Prairies	89	10. Trans-Pecos, Mountains	
		and Basins	97

THE FUTURE

When we moved to Texas in 1980 a colleague asked us (tongue-in-cheek), "Are you planning to write a book on the ants of Texas?" We replied (in the verifular of the day), NO WAY! Why not? We can think of at least two good reasons. In *The Ants of North Dakota* we devoted 273 pages to 83 species. The Texas fauna, of 210 species, by the same devotion, would require 690 pages.

Who would publish such a book? And even if the publication were subsidized who would buy it at a hundred dollars a copy? The second reason: it would be unseemly for an octogenarian to plan to do the necessary fieldwork unless he could get a grant large enough to afford a large crew of competent assistants to get the collecting done in a year or two. Where could one possibly get such a grant for faunistics?

It will probably be necessary to treat the ants of Texas in three separate volumes: 1) descriptions and ranges west of the 100th Meridian, 2) descriptions and ranges east of the 100th Meridian and 3) ecological biogeography of the state as a whole. A good start has already been made by Dr. Oscar F. Francke of Texas Tech University at Lubbock (see Moody and Francke 1982).

THE PLAN FOR THE LIST

Subfamilies and there genera have been arranged as in Creighton 1950. The species of each genus have been arranged alphabetically. The name of the species is followed by its author's name. Next we give the abbreviations of the geographical sections of the state in which the species occurs: C = Central, N = Northern, NE = Northeastern, E = Eastern, SE = Southeastern, S = Southern, SW = Southwestern, W = Western, NW = Northwestern. Then we give the numbers of the Vegetational Areas. Finally we give a list of the counties in which the records are located, provided the number of counties does not exceed 24. If the number is 25 or more we give the number of counties, naming those which afford new records. All new records, either species or county, are marked with an asterisk.

TEXAS ANTS

SUBFAMILY PONERINAE

Amblyopone pallipes (Haldeman)—C. 4, 5, 7. Travis.

Platythyrea punctata (Smith)—S. 2, 6. Cameron.

Gnamptogenys hartmanni (Wheeler) - E. 1, 3. Walker.

Proceratium croceum (Roger)—(Locality not given).

Cryptopone gilva (Roger)—E. 1, 2. Montgomery.

Hypoponera inexorata (Wheeler)—C, NE, W. 4, 5, 7, 8, 10. Dallas, Jeff Davis, Tom Green, Travis.

Hypoponera opaciceps (Mayr)—C, E, SE, S., Bexar, Comal, Liberty, Jefferson, Matagorda, Travis, Victoria.

Hypoponera opacior (Forel)—C, NE, E, S, W. 1, 2, 3, 4, 5, 6, 7, 10. Brazos, Brown, Cameron, Collin, Dallas, *Fannin, Harrison, Hunt, Lamar, Presidio, Travis, Victoria.

Hypoponera punctatissima (Buckley)—C, S. 4, 5, 7. Bell, Comal.

Pachycondyla harpax (Fabricius)—C, SE, S, SW, W. 1, 2, 3, 4, 5, 6, 7. Bexar, Cameron, Edwards, Fayette, Harris, Matagorda, San Patricio, Travis, Val Verde, Victoria.

Pachycondyla villosa (Fabricius)—S. 2, 3, 4, 6, 7. Bexar, Cameron, Hidalgo, Jim Wells, Karnes.

*Ponera pennsylvanica Buckley-E. 1. *Travis.

Leptogenys elongata (Buckley)—C, N, NE, SE, S, SW. 1, 2, 3, 4, 5, 6, 7. 26 counties including *Bexar, *Jack, *Karnes, *Kerr.

Odontomachus clarus Roger—C, NE, S, SW, W. 3, 4, 5, 6, 7, 8, 10. Bexar, Bosque, Brewster, Burnet, Comal, Eastland, Hidalgo, Jeff Davis, Jim Wells, *Llano, McCullough, McLennan, Milam, Tom Green, Travis, Uvalde.

SUBFAMILY CERAPACHYINAE

Cerapachys augustae Wheeler - C. 4, 5, 7. Travis.

Cerapachys davisi Smith-W. 10. Jeff Davis.

Acanthostichus texanus (Forel)—S. 2, 3, 4. 6. Cameron, Starr, Victoria.

SUBFAMILY DORYLINAE

Labidus coecus (Latreille)—C, NE, E, SE, S, W. 1, 2, 3, 4, 5, 6, 7, 10. 28 counties.

Neivamyrmex baylori Watkins-C. 4, 5. McLennan.

Neivamyrmex fallax Borgmeier-C, E, S. 1, 2, 3, 4, 5, 7. Comal, San Augustine, Travis, Victoria.

Neivamyrmex fuscipennis (Wheeler)—C. 4, 5, 7. Bexar, Bosque, McLennan. Neivamyrmex harrisi (Haldeman)—C, N, NE, S. 1, 2, 3, 4, 5, 6, 7. Bastrop, Bell, Blanco, Brazos, Calhoun, Cameron, Coryell, Dallas, Eastland, Fort Bend, Hays, Hill, Johnson, Kerr, Tarrant, Travis, Trinity, Victoria, Wharton, Williamson.

Neivamyrmex leonardi (Wheeler)—C, NW. 3, 4, 5. 9. Bosque, *Lubbock, McLennan.

Neivamyrmex macropterus Borgmeier-W. 10. Brewster, Jeff Davis.

Neivamyrmex melsheimeri (Haldeman)—C, NE, SE, S. 1, 2, 3, 4, 5, 6, 7. Burleson, Cameron, Collin, Colorado, Comal, Dallas, Fort Bend, Limestone, Morris, Travis, Wharton.

Neivamyrmex minor (Cresson)—C, NE, S, W, NW. 3, 4, 5, 6, 7, 8, 10. Bosque, Brewster, Collin, Dallas, Hidalgo, Jeff Davis, Morris, Nolan.

Neivamyrmex moseri Watkins-C. 4, 5. Bell.

Neivamyrmex nigrescens (Cresson)—C, NE, E, SE, SW. 1, 2, 3, 4, 5, 6, 7, 10. Anderson, Atascosa, Bell, Bosque, Brazoria, Burnet, Calhoun, Dallas, Denton, *Fannin, Harris, Hidalgo, Hunt, Jeff Davis, Johnson, Kenedy, Lamar, McLennan, Matagorda, Montgomery, Panola, Travis, Val Verde, Wharton.

Neivamyrmex opacithorax (Emery)—C, N, NE, S. 2, 3, 4, 5, 7. Dallas, Eastland, Jack, McLennan, Travis, Victoria.

Neivamyrmex pauxillus (Wheeler)—C, S, W. 4, 5, 6, 7, 10. Bell, Brewster, Hidalgo, McLennan, Travis.

Neivamyrmex pilosus mexicanus (Smith)—C, NE, SE, S, W, NW. 1, 2, 3, 4, 5, 6, 7, 8, 10. Bastrop, Blanco, Brewster, Caldwell, Cameron, Colorado, Comanche, Dallas, Eastland, *Fannin, Liberty, Llano, McLennan, Milam, Morris, Nolan, Reeves, Tom Green, Travis, Victoria, Wharton.

Neivamyrmex swainsoni (Shuckard) - C, S, W. 2, 3, 4, 5, 6, 7, 10. Bastrop, Bexar, Blanco, Cameron, Dimmit, Hidalgo, Jeff Davis, Jim Wells, Travis,

Victoria.

Neivamyrmex texanus Watkins—C, S, W, 2, 3, 4, 5, 6, 7, 10. Bell, *Bexar, *Brewster, *Fannin, Hill, Jeff Davis, Llano, Lubbock, McLennan, *Val Verde, Victoria.

Nomamyrmex esenbecki wilsoni (Santschi)-S. 6. Cameron.

SUBFAMILY PSEUDOMYMRECINAE

Pseudomyrmex abache Creighton-S, W. 6, 10. Hidalgo, LaSalle, Presido. Pseudomyrmex brunneus (Smith)—C, S. 2, 3, 4, 5, 6, 7. *Bexar, Cameron, Comal. McLennan, Victoria.

Pseudomyrmex elongatus (Mayr)—S, W. 2, 6. Cameron, Hidalgo, Willacy. Pseudomyrmex gracilis mexicanus (Roger) - S. 2, 3, 6. Cameron, Nueces, Victoria.

Pseudomyrmex pallidus (Smith)—C, NE, S, SW. 2, 3, 4, 5, 6, 7. Brooks, Comal, Dallas, Edwards, Hidalgo, McLennan, Travis, Victoria.

SUBFAMILY MYRMICINAE

Myrmica emeryana Forel—W. 10. Culberson. Myrmica striologaster Cole-W. 10. Culberson, Jeff Davis

Paramyrmica colax Cole-W. 10. Jeff Davis.

Pogonomyrmex apache Wheeler-C, SW, W, NW. 6, 7, 8, 9, 10. Bexar, Brewster, Concho, Cottle, Crosby, El Paso, Gray, Hall, Hansford, Hudspeth, Hutchinson, Lubbock, Midland, Motley, Randall, Roberts, Sterling, Uvalde. Pogonomyrmex barbatus (Smith)—C, N, NE, SE, S, SW, W, NW. 2, 3, 4,

5, 6, 7, 8, 9, 10. 108 counties including *Bexar, *Fannin, *Grayson, *Hidalgo, *Llano, *Tarrant.

Pogonomyrmex bigbendensis Francke & Merikel-W. 10. Brewster.

Pogonomyrmex californicus (Buckley)—W. 10. El Paso, Hudspeth, Presidio. Pogonomyrmex comanche Wheeler - C, NE, NW. 4, 5, 7, 8, 9. Collingsworth, Dallas, Hemphill, McLennan, Motley, Stonewall, Travis, Wheeler.

Pogonomyrmex desertorum Wheeler - W, NW. 7, 8, 9, 10. Brewster, Crane, Crockett, Culberson, Ector, El Paso, Fischer, Jeff Davis, Hudspeth, Loving, Midland, Pecos, Presidio, Reeves, Scurry, Terrell, Upton, Ward, Winkler.

Pogonomyrmex maricopa Wheeler - W, NW. 8, 9, 10. Andrews, Armstrong, Bailey, Brewster, Crane, Culberson, Ector, El Paso, Gaines, Hartley, Hudspeth, Kent, Midland, Moore, Oldham, Pecos, Potter, Presidio, Randall, Ward, Winkler.

Pogonomyrmex occidentalis (Cresson)-W, NW. 8, 9, 10. Cochran, Culberson, Dallam, Hartley, Hemphill, Lipscomb, Sherman, Winkler.

Pogonomyrmex rugosus Emery—C, W, NW. 7, 8, 9, 10. 64 counties.

Pogonomyrmex texanus Franke & Merickel-C, W, NW. 7, 8, 9, 10. Brewster, Coke, Crane, Crockett, Crosby, Culberson, Dickens, Hall, Lubbock, Midland, Presidio, Reagan, Terrell, Upton.

- Ephebomyrmex imberbiculus (Wheeler)—C, SW, W, NW. 5, 7, 8, 9, 10. 34 counties including *Jack.
- Aphaenogaster albisetosus Mayr-W. 10. Brewster, Hudspeth, Jeff Davis, Presidio.
- *Aphaenogaster boulderensis smithi Gregg-W. 10. *Brewster.
- Aphaenogaster cockerelli Andre-C, W, NW. 7, 8, 9, 10. 36 counties.
- *Aphaenogaster fulva Roger-E. 1. *Polk.
- Aphaenogaster tennesseensis (Mayr)-NW. 8. Hemphill.
- Aphaenogaster texana (Emery)—C, S, W. 2, 3, 4, 5, 6, 7, 8, 10. Bexar, Brewster, Comal, Culberson, Dallas, Hemphill, Travis, Victoria, Winkler.
- Aphaenogaster treatae pluteicornis Wheeler & Wheeler C, NE. 1, 3, 4, 5, 7. Fannin, *Morris.
- Pheidole bicarinata longula Emery—C, N, SW, W, NW. 2, 5, 6, 7, 8, 9. Clay, Denton, Hartley, Jim Wells, Lubbock, Moore, Nolan, Sherman, Tom Green, Uvalde, Winkler.
- Pheidole bicarinata vinelandica Forel—C, N, NE, S, W, NW. 2, 3, 4, 5, 6, 7. 59 counties.
- Pheidole casta Wheeler-SW. 7. Val Verde.
- Pheidole ceres Wheeler-W. 10. Culberson, Hudspeth, Jeff Davis.
- Pheidole cockerelli Wheeler—W, NW. 7, 8, 9, 10. Andrew, Briscoe, Cottle, Crockett, Deaf Smith, Dickens, Donley, Floyd, Garza, Glassock, Hall, Jeff Davis, Lipscomb, Lubbock, Martin, Midland, Randall, Wheeler.
- Pheidole crassicornis Emery—C, W, NW. 3, 4, 5, 9, 10. Eastland, El Paso, Fayette, Hudspeth, Jeff Davis, Martin, Presidio.
- Pheidole crassicornis tetra Wheeler—C, S, SW, W, NW. 2, 3, 4, 5, 6, 7, 8, 9, 10. Bexar, Briscoe, Burleson, Cameron, Collingsworth, Dallam, Edwards, Jeff Davis, Kimble, Lamb, Lubbock, Menard, Presidio, Sutton, Tom Green, Travis, Val Verde, Wheeler.
- Pheidole dentata Mayr—C, N, NE, SE, S, SW, W, NW. 2, 3, 4, 5, 6, 7, 8, 9, 10. 60 counties including *Fannin, *Grayson, *Llano, *Morris, *San Patricio, *Tarrant, *Wood.
- Pheidole desertorum Wheeler-C, S, W, NW. 2, 3, 6, 7, 8, 9, 10. Bee, Brewster, Culberson, De Witt, El Paso, Floyd, Hidalgo, Jeff Davis, Karnes, Motley, Pecos, San Patricio, Wilson.
- Pheidole floridana Emery-C, S. 4, 6. Comal, Cameron.
- Pheidole floridana constipata Wheeler C. 4. Comal.
- Pheidole humeralis Wheeler-C, SW. 4, 6. Kinney, Navarro.
- Pheidole hyatti Emery—C, N, NE, SW, W, NW. 3, 4, 5, 7, 8, 9, 10. 46 counties.
- Pheidole lamia Wheeler C. 7. Bexar, Irion, Kimble, Tom Green, Travis.
- Pheidole macclendoni Wheeler C, S, SW, W. 4, 5, 6, 7. Maverick, Navarro, Terrell, Webb.
- Pheidole marcidula Wheeler—C, NE, W. 4, 5, 7, 10. Dallas, Hudspeth, Jeff Davis. Travis.
- Pheidole metallescens Emery C, SW, W, NW. 6, 7, 8. Burnet, Garza, Kimble, Maverick, Nolan, Sutton, Terrell, Tom Green, Travis, Val Verde.

Pheidole metallescens splendidula Wheeler—C, N, NE, S, SW, W. 2, 3, 4, 5, 6, 7. Burnet, *Cameron, Crockett, Dallas, Denton, *Morris, Nueces, Travis, Val Verde.

Pheidole micula Wheeler-W. 10. Hudspeth.

Pheidole militicida Wheeler - W. 10. Culberson.

Pheidole morrisi impexa Wheeler-C. 4, 5, 7. Travis.

Pheidole nuculiceps Wheeler - C. 4, 5, 6, 7. *Bexar, Travis.

Pheidole pilifera artemisia Cole-W. 10. Hudspeth, Presidio.

Pheidole pilifera coloradensis Emery—C, SW, W, NW. 6, 8, 9, 10. Crane, Crosby, Culberson, Gaines, Garza, Hale, Hartley, Jeff Davis, Lubbock, Maverick, Presidio, Scurry, Wheeler.

Pheidole pinealis Wheeler-W. 10. Culberson, El Paso, Jeff Davis, Pecos.

Pheidole porcula Wheeler N. SW, W. NW. 5, 7, 9, 10. Brewster, El Paso,

Hudspeth, Jack, Jeff Davis, Martin, Presidio, Val Verde.

Pheidole ridicula Wheeler-S, SW. 6. Cameron, Duval, Maverick.

Pheidole rugulosa Gregg – W., NW. 7, 9, 10. Brewster, Crane, Culberson, Hartley, Hudspeth, Jeff Davis, Presidio, Reeves, Terrell, Winkler.

Pheidole sciara Cole-W. 10. Brewster, Crane, Ector, Hudspeth, Jeff Davis, Midland, Pecos, Reeves, Ward, Winkler.

Pheidole sciophila Wheeler – C, W. 3, 4, 5, 7, 10. Bastrop, Brewster, Comal, Presidio, Travis.

Pheidole senex Gregg-NW. 9. Dallam, Potter, Sherman.

Pheidole sitarches Wheeler – C, N, S, W. 4, 5, 6, 7, 10. *Bexar, Brewster, Comal, Crockett, Ector, *Frio, Jeff Davis, Kimble, Midland, Sutton, Travis, Uvalde, Webb, Wise.

Pheidole sitarches campetris Wheeler—C, N, NE, SE, NW. 2, 3, 4, 5, 7, 8, 9. Burleson, Childress, Clay, Collingsworth, Crosby, Dallas, Donley, Edwards, Fort Bend, Gonzales, *Hale, Hemphill, Jack, Lavaca, Lubbock, Scurry, Tom Green, Travis, Wheeler.

Pheidole sitarches soritis Wheeler – C, SW, W, NW. 7, 8, 9, 10. 32 counties. Pheidole tepicana Pergande – C, S, SW, W, NW. 3, 4, 5, 6, 7, 8, 9. Bexar, Caldwell, Crockett, Dimmit, Eastland, Edwards, Hidalgo, Jones, Kimble, Kinney, Maverick, Potter, Sutton, Travis, Uvalde, Val Verde.

Pheidole texana Wheeler—C, S, SW. 2, 4, 5, 6, 7. Nueces, Sutton, Travis, Uvalde.

Pheidole titanis Wheeler-W. 10. Brewster, Jeff Davis.

Pheidole tucsonica Wheeler - C, N, W. 5, 10. Callahan, Presidio, Tarrant. Pheidole tysoni Forel - NW. 9. Hale.

Pheidole virago Wheeler - S. 6. Webb.

Pheidole xerophila Wheeler—W. 7, 10. Brewster, Crane, Culberson, El Paso, Hudspeth, Jeff Davis, Loving, Midland, Pecos, Presidio, Terrell, Ward, Winkler.

Cardiocondyla emeryi Forel – S. 6. Cameron.

Cardiocondyla nuda (Mayr) - S. 6. Cameron.

Crematogaster arizonensis Wheeler - S. 6. Cameron, Hidalgo.

Crematogster ashmeadi Mayr-N, NE, SE, S. 2, 3, 4, 5. Denton, Grayson, Jefferson, Red River, Victoria.

- Crematogaster browni Buren-W. 10. Jeff Davis, Presidio.
- *Crematogaster cerasi (Fitch)—C. 4. *McLennan.
 - Crematogaster clara Mayr—C, N, NE, S, SW. 2, 3, 4, 5, 6, 7, 8. Cameron, Comal, *Dallas, De Witt, Ellis, Fannin, Harris, Hays, Hidalgo, Jim Wells, Lamar, Lavaca, Llano, McLennan, *Morris, Red River, Val Verde, Webb, Wichita.
 - Crematogaster colei Buren W. 10. Brewster, Jeff Davis.
 - Crematogaster depilis Wheeler-W. 10. Brewster, El Paso, Hudspeth, Jeff Davis, Presidio, Winkler.
 - Crematogaster emeryana Creighton W. 10. Brewster, Culberson, Jeff Davis. Crematogaster hespera Buren W. 10. El Paso.
- Crematogaster isolata Buren W. 10. Culberson, Jeff Davis.
- Crematogaster laeviuscula Mayr-C, NE, SE, S, SW, W, NW. 2, 3, 4, 6, 7, 8, 9, 10. 36 counties.
- Crematogaster larreae Buren-W. 10. Culberson, El Paso, Jeff Davis.
- Crematogaster lineolata (Say)—NE, S, NW. 2, 3, 4, 5, 8. Dallas, *Fannin, *Grayson, Hemphill, Victoria.
- Crematogaster minutissima Mayr-C, E, SE. Comal, Dallas, Harris, Jasper, Travis.
- Crematogaster minutissima missouriensis Emery C, NE, SW, W, NW. 3, 4, 7, 8, 9, 10. Carson, Hartley, Hemphill, Irion, Jeff Davis, King, Pecos, Sherman, Sutton, Val Verde.
- Crematogaster punctulata Emery—C, N, NE, SE, S, SW, W, NW. 2, 3, 4, 5, 6, 7, 8, 9, 10. 87 counties including *Fannin, *Lubbock.
- Crematogaster rifelna Buren—S. 2, 6. Cameron, Kleberg, Live Oak, Victoria. Monomorium minimum (Buckley)—C, N, SW, W, NW. 2, 3, 4, 5, 6, 7. 61 counties including *Coke, *Fannin, *Llano, *Lubbock, *Medina, *Morris, *Tarrant.
- Monomorium pharaonis (Linnaeus)—C, SE, S, NW. 1, 2, 3, 4, 5, 6, 7, 8, 9. Anderson, *Bexar, Brazos, Galveston, Hidalgo, Jefferson, Lubbock, Taylor, Travis, Victoria.
- Monomorium viride peninsulatum Gregg-C, SW. 4, 5, 7. *Comal, *Travis, Val Verde.
- Solenopsis aurea Wheeler—C, N, NE, E, SW, W, NW. 3, 4, 5, 6, 7, 8, 9, 10. 47 counties including *Henderson, *Llano, *Walker.
- Solenopsis geminata (Fabricius)—C, N, NE, SE, S, SW. 2, 3, 4, 5, 6, 7. 34 counties.
- Solenopsis invicta Buren—C, N, NE, E, SE, S. 1, 2, 3, 4, 5, 6, 7. 110 counties, mostly in the eastern half, only 3 counties west of 100th meridian (Francke et al 1983).
- Solenopsis krockowi Wheeler W, NW. 7, 9, 10. Brewster, Culberson, Loving, Pecos, Presidio, Randall, Terrell.
- Solenopsis molesta (Say)—C, NE, E, SW, W, NW. 1, 3, 4, 5, 7, 8, 9, 10. Brewster, Culberson, Dallas, Edwards, El Paso, *Fannin, Hale, Hudspeth, Jeff Davis, Montgomery, *Polk, Presidio, Reagan, Runnels, *Shelby, Terrell, Ward.
- Solenopsis picta Emery-S. 2, 3. Victoria.

Solenopsis pilosula Wheeler-S. 2, 6. Jim Wells.

Solenopsis salina Wheeler—C, SW, W, NW. 7, 8, 9, 10. Andrews, Brewster, Collingsworth, Culberson, Dickens, Donley, El Paso, Hartley, Hemphill, Hudspeth, Loving, Lubbock, Moore, Motley, Presidio, Real, Reeves, Val Verde, Winkler.

Solenopsis tennesseensis Smith-W. 10. Culberson.

Solenopsis texana Emery-C, N, NE, S. 2, 3, 4, 5, 7. Bell, Clay, *Fannin, Travis, Victoria.

Solenopsis xyloni McCook—C, N, NE, E, SE, S, SW, W, NW. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 132 counties including *Jeff Davis, *Travis, *Tyler.

Oligomyrmex longi (Wheeler)—C, N. 5, 7. Denton, Irion.

Myrmecina americana Emery—C, NE. 4, 5, 7. Collins, Comal, Dallas, Kimble, Travis.

Macromischa subditiva Wheeler-C, S. 2, 3, 4, 5, 6, 7. Cameron, Comal, *Hays, *Hidalgo, Travis, Victoria.

Rogeria creightoni Snelling-S. 6. Cameron.

Leptothorax carinatus Cole-W. 10. Jeff DAvis.

Leptothorax curvispinosus Mayr-NE. 4, 5. Dallas.

Leptothorax hispidus Cole-W. 10. Jeff Davis.

Leptothorax nitens Emery-W, NW. 9, 10. El Paso, Lubbock, Potter, Randall. Sherman.

Leptothorax obturator Wheeler - C, SW. 4, 5, 6, 7. *Bexar, Real, Travis, Uvalde.

Leptothorax pergandei Emery-C. 4, 5, 7, 8. Tom Green, Travis.

Leptothorax rugatulus brunnescens Wheeler-W. 10. Culberson.

Leptothorax schaumi Roger - C, W, NW. 7, 8, 10. Collingsworth, Hemphill, Jeff Davis, Kimble, Real, Travis.

Leptothorax terrigena Wheeler - C. 4, 5, 7. Travis.

Leptothorax texanus Wheeler-C. 3, 4. Milam.

Leptothorax wilda Smith-S. 6. Cameron.

Tetramorium guineense (Fabricius)—C, E, SE, S. 1, 2, 3, 4, 6. Bastrop, Bee, Caldwell, Colorado, De Witt, Hays, Hardin, Jasper, Lavaca, Victoria, Wharton, Wilson.

Xiphomyrmex spinosus insons Wheeler—C, N, S, SW, W, NW. 4, 5, 6, 7, 8, 9, 10. 27 counties including *Culberson, *Jack.

Zacryptocerus texanus (Santschi)—C, S, SW. 2, 3, 4, 6. Austin, Bee, Bexar, Cameron, Colorado, De Witt, Hidalgo, Jefferson, Lavaca, *Live Oak, Neuces, San Patricio, Uvalde, Victoria, Wilson.

Smithistruma margaritae (Forel)—C. 4, 7. Comal.

Smithistruma ornata (Mayr)-NE. 1. Cass.

Strumigenys louisianae Roger—C, S, SW, W. 2, 3, 7, 10. Brewster, Kimble, Sutton, Victoria.

Cyphomyrmex rimosus (Spinola)—C, E, SW. 1, 4, 6, 7. Comal, Polk, Uvalde. Cyphomyrmex wheeleri Forel—C, S, SW, W, NW. 4, 5, 6, 7, 8, 10. Bell, Brewster, *Cameron, Crosby, Jeff Davis, Pecos, Reagan, Reeves, Scurry, Terrell, Travis, Val Verde.

Mycetosoritis hartmanni (Wheeler) - C. 4, 7. Travis.

*Trachymyrmex desertorum (Wheeler)-S. 6. *Willacy.

Trachymyrmex septentrionalis (McCook)—C, N, NE, E, NW. 1, 3, 4, 5, 7, 8. Anderson, Brazos, Brown, Dickens, *Fannin, Lamar, Milam, *Tarrant, Travis, Walker.

Trachymyrmex smithi Buren—W. 10. Brewster, El Paso, Hudspeth, Presidio. Trachymyrmex turrifex (Wheeler)—C, N, S, SW, W, NW. 4, 5, 6, 7, 8, 9, 10. 25 counties including *Cameron.

Trachymyrmex turrifex caroli (Wheeler) - E. 1. Walker.

Acromyrmex versicolor chisosensis (Wheeler) - W. 10. Brewster.

Atta texana (Buckley)—C, E, SE, S, SW. 1, 2, 3, 4, 6, 7. Bastrop, Bexar, Comal, Fayette, Fort Bend, Guadalupe, Jackson, Jim Wells, Karnes, Kinney, Kleberg, Llano, Maverick, Montgomery, Polk, Real, Travis, Tyler, Uvalde, Victoria, Washington.

SUBFAMILY DOLICHODERINAE

Liometopum apiculatum Mayr-W. 10. Brewster, Jeff Davis.

Liometopum occidentale luctuosum Wheeler-W. 10. Jeff Davis.

Iridomyrmex humilis (Mayr)—C, N, NE, E, SE. 1, 2, 3, 4, 5. 30 counties. Forelius foetidus (Buckley)—C, N, NE, E, S, W, NW. 1, 2, 3, 4, 5, 6, 7, 8,

9, 10. *Bexar, *Brewster, Dallas, El Paso, Fannin, Hamilton, Harrison, Hidalgo, Kaufman, Kleberg, Lamar, Llano, Lubbock, *Morris, San Patricio, Victoria, Wichita.

Forelius pruinosus (Roger)—C, NE, S. 2, 3, 4, 5. Brazos, Dallas, Victoria. Conomyrma bicolor (Wheeler)—W. 10. *Brewster [?Bastrop, ?Comal].

Conomyrma insana (Buckley)—C, N, NE, E, SE, S, W, NW. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. 39 counties including *Crosby, *Lubbock, *McLennan, *Travis, *Tyler.

Tapinoma sessile (Say)-W. 10. Culberson.

SUBFAMILY FORMICINAE

Brachymyrmex depilis Emery -C, NE. 4, 5, 7. Dallas, Travis.

Brachymyrmex obscurior Forel - S. 2. Nueces.

Camponotus americanus Mayr—C, NE, E. 1, 3, 4. Anderson, Brazos, *Fannin, Robertson, Travis.

Camponotus pennsylvanicus (DeDeer)—C, NE, E, S. 1, 2, 3, 4, 5. Anderson, Brown, Brazoria, Dallas, Gregg, Houston, Jefferson, *Lampasas, Robertson, Shelby, Travis, Victoria, Walker.

Camponotus texanus Wheeler - C, S. 2, 3, 4. Travis, Victoria.

Camponotus (Tanaemyrmex) acutirostris Wheeler-W. 7, 10. *Brewster, *Crockett, *Culberson, *Reagan.

Camponotus (Tanaemyrmex) festinatus (Buckley)—C, S, W. 6, 7, 8, 10. Bexar, Brewster, Brown, Burnet, *Cameron, Comal, *Culberson, Dimmit, Jeff Davis, Karnes, Kerr, Lampasas, Llano, *Lubbock, McCulloch, *Schleicher, Taylor, Tom Green, Travis, *Ward, Webb.

- Camponotus (Tanaemyrmex) sansabeanus (Buckley)—C, N, NE, W. 3, 4, 5, 7, 8, 10. Bowie, Burnet, *Culberson, Dallas, *Hudspeth, McLennan, Palo Pinto, *Schleicher, Tarrant, Travis.
- Camponotus (Tanaemyrmex) semitestaceus Emery-C. 5. Eastland.
- *Camponotus (Tanaemyrmex) vafer Wheeler-C. 4, 6, 7. *Bexar.
- Camponotus (Myrmentoma) caryae discolor (Buckley)—C, N, NE, S. 2, 3, 4, 5, 6, 7, 8. Bexar, Cameron, Dallas, Johnson, Karnes, Llano, Nueces, Travis, Victoria, Wichita.
- Camponotus (Myrmentoma) nearcticus Emery—C, NE, E, SE, S, W. 1, 2, 3, 4, 5, 6, 7, 10. *Bexar, Dallas, *Jeff Davis, Liberty, Matagorda, *Newton, Robertson, Travis, *Tyler, Victoria.
- Camponotus (Myrmentoma) sayi Emery—C, NE, E, S, SW, W. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. *Bexar, Brazos, Brewster, Burnet, *Cass, Comal, Dallas, Edwards, *Fannin, Kerr, Llano, Robertson, Tom Green, Travis, Tyler, Val Verde, Victoria.
- Camponotus (Myrmothrix) abdominalis transvectus Wheeler S, W. 6, 10. Cameron, *Culberson, Hidalgo, *Webb.
- Camponotus (Myrmobrachys) planatus Roger—S. 2, 6. Aransas, Calhoun, Cameron, Hidalgo, Nueces, Victoria.
- Camponotus (Myrmaphaenus) ulcerosus Wheeler-W. 10. Jeff Davis.
- Colobopsis etiolata (Wheeler)—C, SE, S. 2, 3, 4, 6, 7. Cameron, Frio, Hidalgo, Jackson, Travis, Victoria.
- Colobopsis hunteri (Wheeler) S. 2, 3. Victoria.
- Colobopsis impressa (Roger)-NE. 4, 5. Dallas.
- Colobopsis pylartes (Wheeler)—C, E, S. 1, 2, 3, 4, 5, 6, 7. Bexar, Comal, Houston, Trinity, Victoria, Williamson.
- Paratrechina bruesi (Wheeler)—C, W, NW. 4, 5, 7, 8, 9, 10. Bexar, King, Lubbock, Presidio, Travis.
- Paratrechina fulva (Mayr) S. 6. "Extreme southern Texas."
- *Paratrechina guatemalensis (Forel)—N. 5. *Tarrant.
- Paratrechina longicornis (Latreille)—C, N, E, SE, S. 1, 2, 3, 4, 5, 6, 7. 25 counties.
- Paratrechina melanderi (Wheeler)—C, S, W. 2, 3, 4, 5, 6, 7, 10. Comal, Jeff Davis, Tom Green, Travis, Victoria.
- Paratrechina melanderi arenivaga (Wheeler)—C, N, NE, E, S. 1, 4, 5, 6, 7. Dallas, Hidalgo, Jack, Llano, Polk, Tyler.
- *Paratrechina paryula (Mayr)—C. 7. *Bexar.
- Paratrechina visidula (Nylander) S. 2, 3. Victoria.
- Prenolepis imparis (Say)-N, NE, E. 1, 4, 5. Dallas, Denton, Panola.
- Lasius neoniger Emery-NW. 9. Dallam.
- *Acanthomyops interjectus (Mayr)—NW. 8. *Hemphill.

 Myrmecocystus depilis Forel—SW, W. 7, 10. Brewster, *Culberson, El Paso,
 Pecos, Val Verde, Ward.
- Myrmecocystus melliger Forel-W. 10. Jeff Davis.
- Myrmecocystus mendax Wheeler—C. 4, 5, 6, 7. Bexar, Comal, Edwards, Hays, Sutton, Travis, Williamson.
- Myrmecocystus mexicanus Wesmael W. 10. Hudspeth.

Myrmecocystus mimicus Wheeler - SW, W, NW. 7, 9, 10. Brewster, Culberson, El Paso, Jeff Davis, Lubbock, Presidio, Upton, Val Verde.

Myrmecocystus navajo Wheeler-W. 10. Culberson, Pecos.

Myrmecocystus placodops Forel-C, S, SW, W, NW. 2, 3, 4, 5, 6, 7, 8, 9, 10. Bexar, Brewster, Burnet, Concho, Culberson, Dimmit, El Paso, Hale, Hall, Karnes, Live Oak, Menard, Pecos, Refugio, Starr, Tom Green, Uvalde, Val ¢erde, Victoria, Willacy, Zapata.

Myrmecocystus romainei Cole-W, NW. 8, 9, 10. El Paso, Dickens, Hall,

Lamb, Lubbock, Scurry. 5W. Formica gnava Buckley—C, W. 4, 7, 10. Bexar, Comal, Crockett, Jeff Davis, Kerr, Llano, Travis, Val Verde.

Formica neoclara Emery—C. 5. Eastland.

*Formica neogagates Emery-NW. 9. *Lubbock.

*Formica neorufibarbis Emery-NW. 8, 9. *Fisher, *Lubbock.

Formica pallidefulva Latreille-C, NE, S. 2, 3, 4. Milam, Travis, *Ward. Formica perpilosa Wheeler - SW, W. 6, 7, 10. *Brewster, Jeff Davis, Maverick,

Presidio, Val Verde.

Formica puberula Emery-W. 10. Jeff Davis.

★ Formica schaufussi Mayr-NE, E. 1, 3, 4. Fannin, Tyler.

Formica schaufussi dolosa Wheeler-C, N, NE, K, SE, S. 2, 3, 4, 5. *Fannin, Jackson, Tarrant, Travis.

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