



## TEXAS PEST ANT IDENTIFICATION: AN ILLUSTRATED “KEY”

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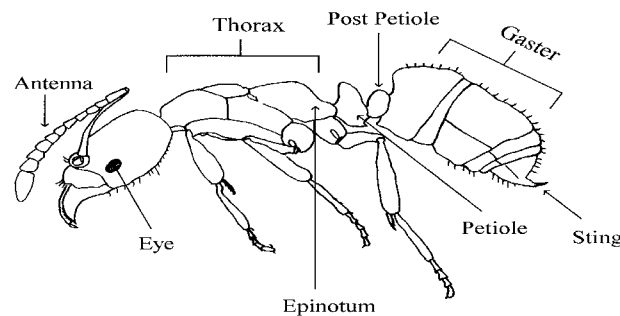
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There are over 210 species of ants (Hymenoptera: Formicidae) in Texas! Ants belong to the family of insects called Formicidae and are in the order Hymenoptera, which also includes bees, wasps and sawflies. The 1985 publication, “A Checklist of Texas Ants,” listing the 210 species, was written by G. C. Wheeler and J. Wheeler and can be found in the *Prairie Naturalist* (Vol. 17, No. 2, pages 49-64). Since 1985, a number of additional species have been found and several new species have been discovered.

Most ant species are not considered to be pests. They are, in fact, beneficial insects that prey upon other insects, collectively till more soil when making their nests than do earthworms, and they are important parts of our ecosystem. Furthermore, we now recognize that preservation of certain native ant species is our best defense against abnormally high populations of the red imported fire ant, *Solenopsis invicta* Buren.

Identification of properly preserved ant specimens is not difficult with a good magnifying lens or dissecting microscope and light source. The ant identification “keys” presented below are in both written and then illustrated forms. In either case, begin at the top of the key and compare the options presented in the first “couplet” (a pair of statements or illustrations) to the specimen’s characteristics. Choose the one that matches the specimen and proceed down the key until proper identification is obtained.

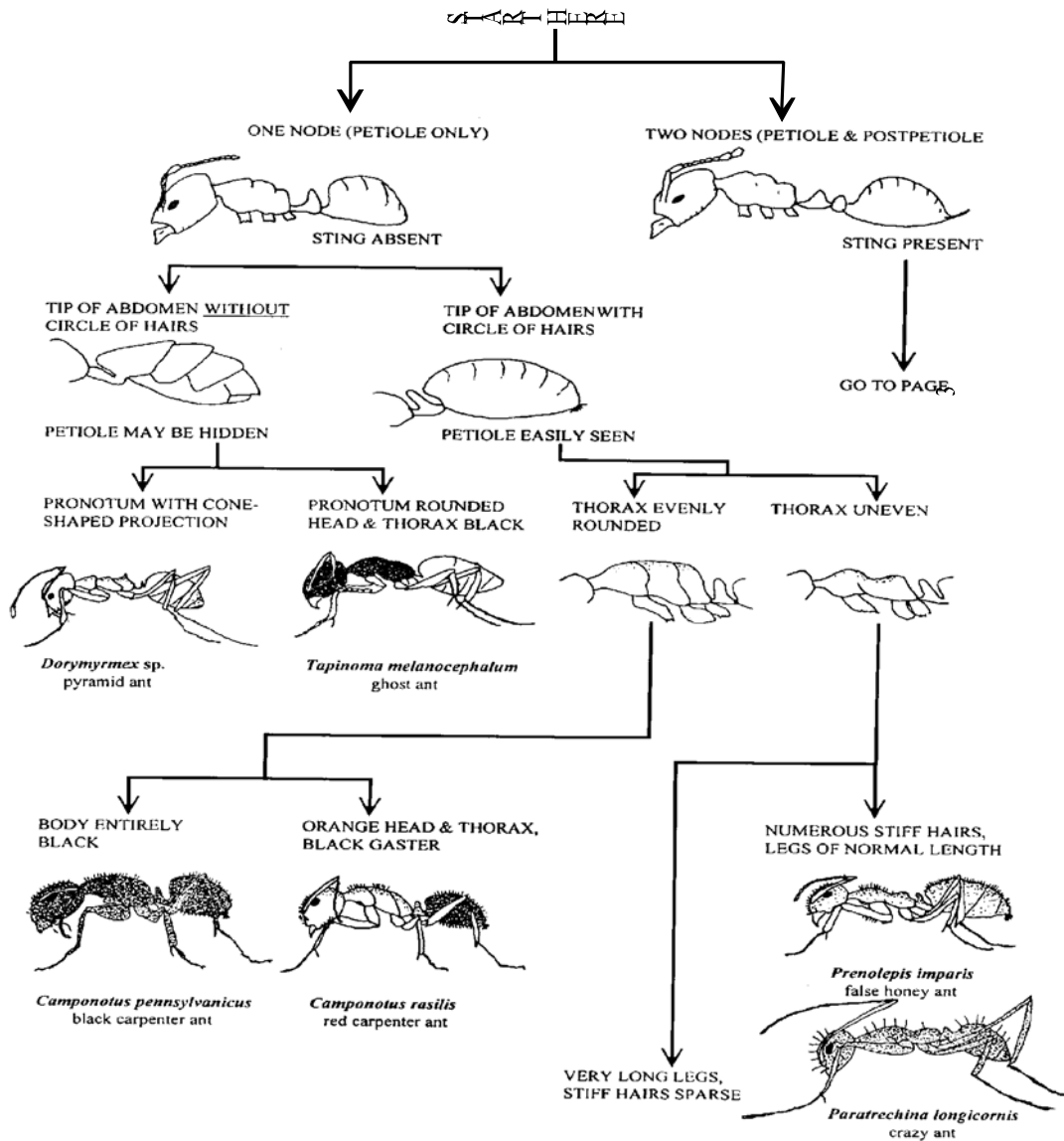
These keys were prepared for common species of ants found in and around the home that are occasionally considered to be pests. Some specimens may not be able to be identified to species using this set of keys, although they may be identified as belonging to a particular group of species. Some rare species cannot be identified with this key. The illustration below provides terms used in this fact sheet.

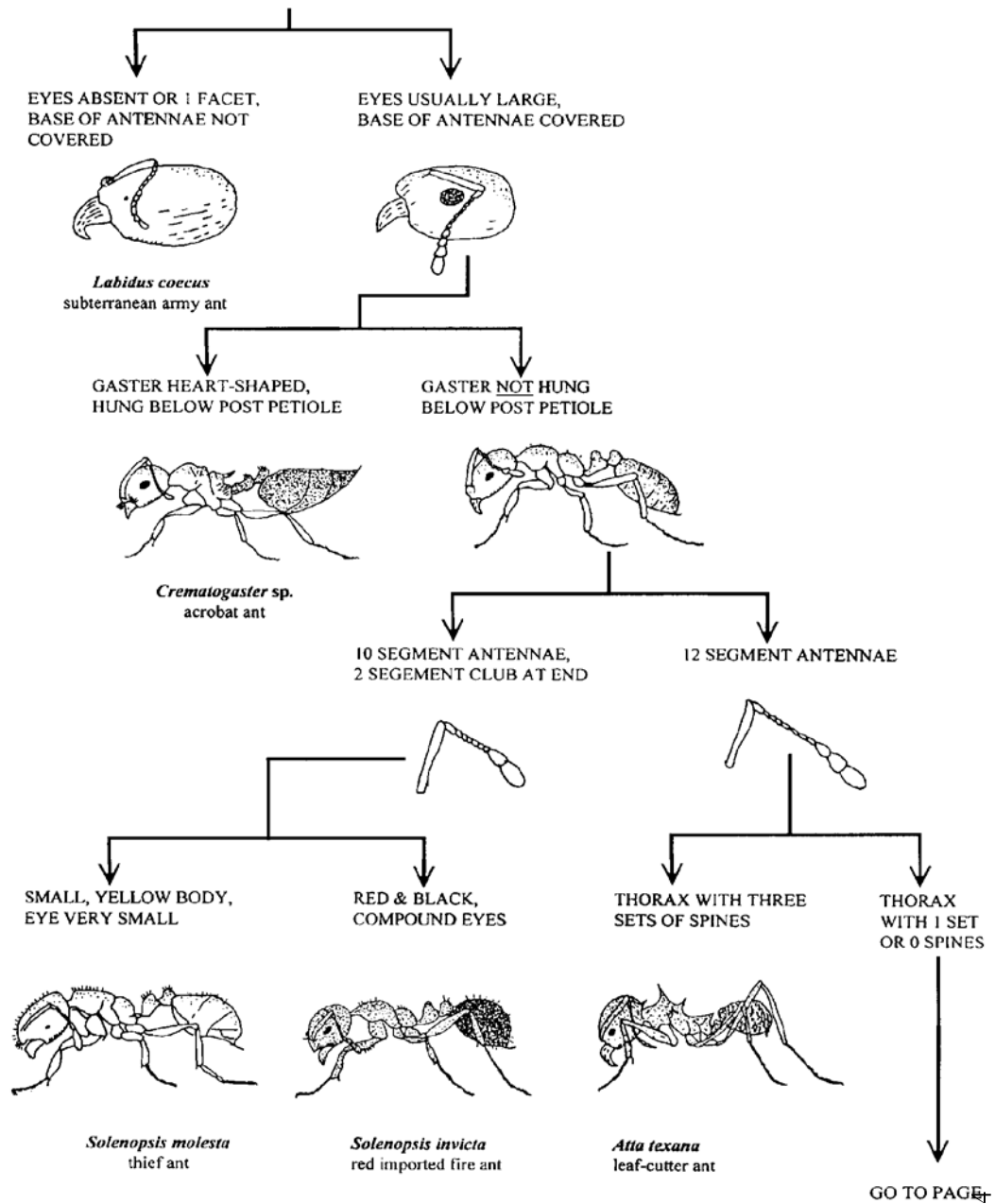


**Note:** To identify Texas’ fire ant species, see [FAPFS013](#). Also see [FAPFS033](#) to make a

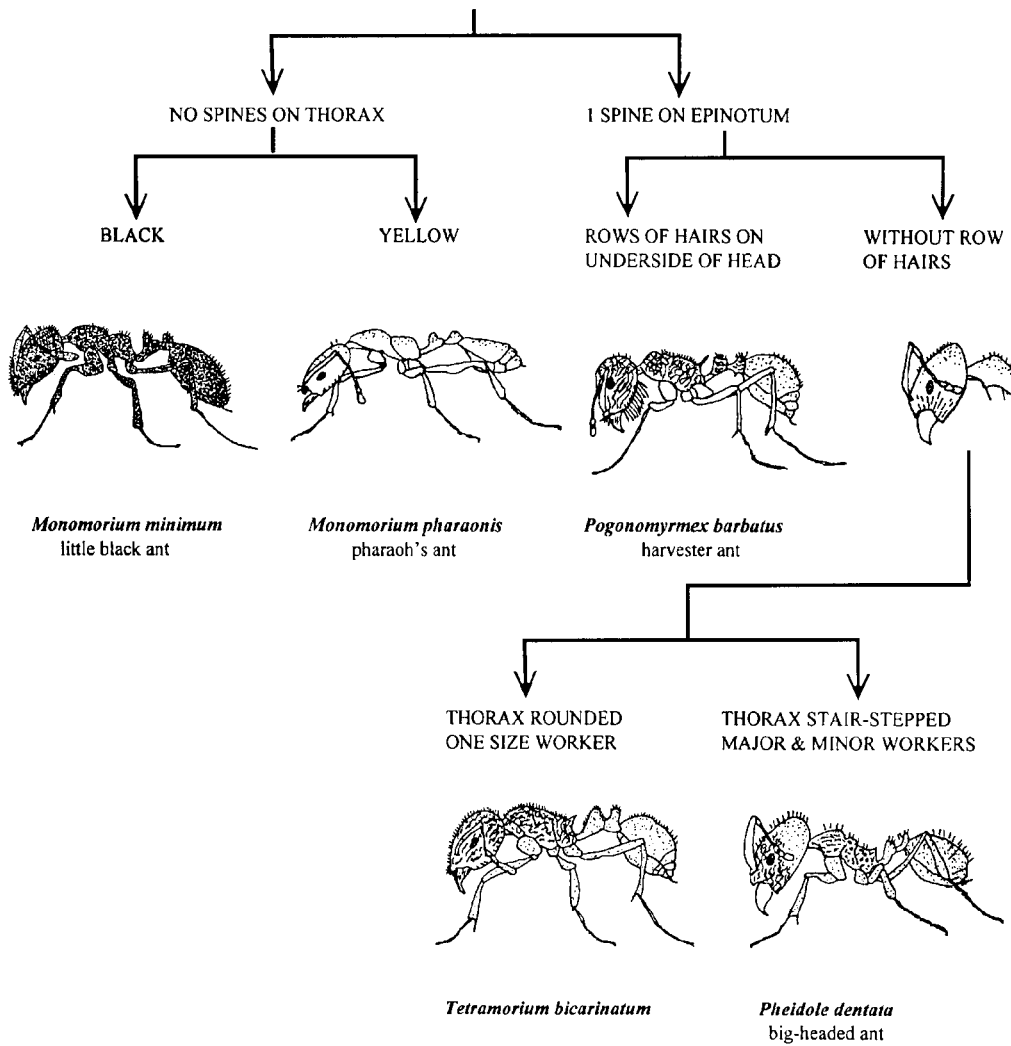
**model of red imported fire ants that identifies characters for proper identification.**

TEXAS PEST ANT IDENTIFICATION: AN ILLUSTRATED "KEY"









## IDENTIFICATION OF COMMON PEST ANT SPECIES IN TEXAS: A WRITTEN “KEY”

1	Petiole present (one node); sting absent . . . . .	2
	Petiole and post petiole present (two nodes); sting present . . . . .	8
2(1)	Tip of abdomen without a circle of hairs (subfamily Dolichoderinae) . . . . .	3
	Tip of abdomen with a circle of hairs (subfamily Forminicae) . . . . .	6
3(2)	Petiole (node) hidden by gaster; rotten odor when crushed. . . . .	4
	Petiole (node) not hidden by addomen . . . . .	5
4(3)	Body entirely brown . . . . . <i>Tapinoma sessile</i> , odorous house ant	
	Head and thorax black, gaster yellow . . . . . . . . . . <i>Tapinoma melanocephalum</i> , ghost ant	
5(3)	Epinotum with a cone-shaped projection . . . . . . . . . . <i>Dorymyrmex pyramicus</i> , pyramid ant	
	Epinotum rounded, without a cone-shaped projection . . . . . . . . . . <i>Linepithema humile</i> , Argentine Ant	
6(2)	Thorax evenly rounded when view from side . . . . . . . . . . <i>Camponotus</i> spp., carpenter ants	
	Thorax uneven along top surface when viewed from side . . . . .	7
7(6)	Legs and antennae very long in proportion to body; stiff hairs sparse . . . . . . . . . . <i>Paratrechina longicornis</i> , crazy ant	
	Legs and antennae in proportion to body; stiff hairs abundant . . . . . . . . . . <i>Prenolepis imparis</i> , false hone ant	
8(1)	Gaster hung below petiole and postpetiole, which is attached to the dorsal surface of the gaster; gaster heart shaped . . . . . . . . . . <i>Cremagaster</i> spp., acrobat ants	
	Post petiole connected to base or middle of abdomen . . . . .	9
9(8)	Antennae with 10 segments, the last 2 enlarged to form a club . . . . .	10
	Antennae with 12 segments, the last 3 sometimes forming a club . . . . .	11
10(9)	Very small, yellow ants . . . . . <i>Solenopsis molesta</i> , thief ant	

- Medium sized, red and brown ants, at least two sizes of workers . . . . .  
 . . . . . ***Solenopsis invicta*, red imported fire ant**
- 11(9) Epinotum rounded, without spines . . . . . 12  
 Epinotum with one pair of spines . . . . . 13
- 12(11) Yellow brown ants . . . . . ***Monomorium pharaonis*, pharaoh's ant**  
 Black ants . . . . . ***Monomorium minimum*, little black ant**
- 13(11) Ventral head with long hairs, resembling a beard . . . . .  
 . . . . . ***Pogonomyrmex barbatus*, red harvester ant**
- Ventral head with or without hairs, but never with a row of long hairs . . . . 14
- 14(13) Head and thorax with distinct grooves throughout . . . . .  
 . . . . . ***Tetramorium caespitum*, pavement ant**
- Head and thorax smooth or head and thorax sculptured, but not with distinct  
 grooves throughout . . . . . 15
- 15(14) Two sizes of workers, larger workers with enlarged heads . . . . .  
 . . . . . ***Pheidole* spp., big headed ants**
- One size of workers, last segment of antennae is elongated . . . . .  
 . . . . . ***Wassmannia auropunctata*, little fire ant**

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For more information regarding fire ant management, see Extension publications [B-6043](#), *Managing Red Imported Fire Ants in Urban Areas*; [B-6076](#), *Managing Red Imported Fire Ants in Agriculture*; [B-6099](#), *Broadcast Baits for Fire Ant Control*; or [L-5070](#) *The Texas Two-Step Method Do-It-Yourself Fire Ant Control for Homes and Neighborhoods*. Also visit our web site at <http://fireant.tamu.edu>.

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## APPENDIX

### Identification and Biology of Selected Native and Pest Ants of Texas

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#### Resources for identification

*Best guide out there (\$14.00 + shipping, can order by phone: 216 961-4130)*

**Field Guide for the Management of Structure-Infesting Ants**, 2<sup>nd</sup> ed. Hedges, Stoy A. 1998. G.I.E. Publishing, Cleveland, OH. 304 pp.

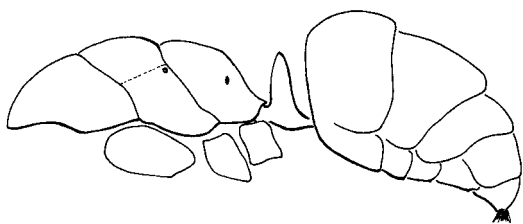
*Simplified identification guides (downloaded as PDF files from <http://fireant.tamu.edu/materials/index.html>)*

**Texas Pest Ant Identification: An Illustrated Key**. Cook, Jerry L. and Bastiaan M. Drees. 1998. Fire Ant Plan Fact Sheet #10, 6 pp.

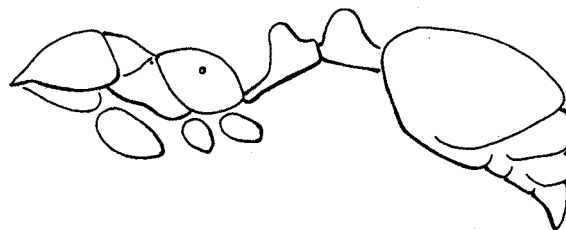
**Texas Fire Ant Identification: An Illustrated Key**. O'Keefe, Sean T., Jerry L. Cook, and S. Bradleigh Vinson. 1999. Fire Ant Plan Fact Sheet #13, 4 pp.

*A listing of all species and known counties of occurrence can be viewed through <http://fasims.tamu.edu/nativeexotic/>*

**The Distribution of Texas Ants**. Sean T. O'Keefe, Jerry L. Cook, Tim Dudek, Douglas F. Wunneburger, Maria D. Guzman, Robert N. Coulson, and S. Bradleigh Vinson. 2000. Southwestern Entomologist Supplement No. 22. 92 pp.



Example of a one-node ant



Example of a two-node ant

<u>One Node Ants</u>	<u>scientific name</u>	<u># species</u>	<u>body size</u>	<u># queens</u>	<u>food</u>	<u>identification</u>
<b>Carpenter</b>	<i>Camponotus</i>	27	polymorphic	monogyne	sweets	large size (1/4-1/2 in), black, red and black, or brown in color
<b>Crazy</b>	<i>Paratrechina</i>	11	monomorphic	polygyne	sweets, protein	medium size (1/8-1/4 in), thorax and abdomen covered with long stiff hairs
<b>Pyramid</b>	<i>Dorymyrmex</i>	5	monomorphic	monogyne	sweets	medium size (1/8-1/4 in), light brown to reddish and dark brown in color, raised tubercle at end of thorax
<b>Argentine</b>	<i>Linepithema humile</i>	1	monomorphic	polygyne	sweets, oil	medium size (1/8 in), dark brown brown to brown in color
<b>Cheese</b>	<i>Forelius</i>	2	monomorphic	monogyne?	sweets	medium size (1/8 in), yellowish brown to dark brown in color, similar to Argentine ant, rectangular-shaped head and body covered with fine hairs, produces a distinct odor when crushed.
<b>Ghost</b>	<i>Tapinoma melanocephalum</i>	2	monomorphic	polygyne	sweets	small (1/16 in), dark head and thorax and light colored abdomen, node hidden from above, distinct odor when crushed
<b>Odorous</b>	<i>Tapinoma sessile</i>	2	monomorphic	polygyne	sweets	small to medium size (1/16-1/8 in), brown in color, node hidden from above, distinct odor when crushed
<b>White-footed</b>	<i>Technomyrmex albipes</i>	0	monomorphic	polygyne	sweets	medium size (1/8 in), body dark colored, legs light colored
<u>Two Node Ants</u>						
<b>Leaf-cutter</b>	<i>Atta texana</i>	1	polymorphic	polygynous	plants, fungus	large size (1/4 -1/2 in), reddish color, spines on head and thorax, dense foraging trails
<b>Harvester</b>	<i>Pogonomyrmex</i>	11	dimorphic	monogyne	seeds	large size (1/2 in), reddish color, head with many small grooves
<b>Fire</b>	<i>Solenopsis</i>	5	polymorphic	both	sweets, oil, protein	medium size (1/8-1/4 in), reddish to brown in color, no spines on thorax, antennal club of 2 segments
<b>Thief</b>	<i>Solenopsis (Diplorhoptrum)</i>	9	monomorphic	polygyne	protein	small size (1/16- 1/8 in), yellow to light brown in color, no spines on thorax, antennal club of 2 segments
<b>Little black</b>	<i>Monomorium</i>	5	monomorphic	polygyne	sweets	small size (1/16- 1/8 in), black in color, no spines on thorax, antennal club of 3 segments
<b>Acrobat</b>	<i>Crematogaster</i>	18	monomorphic	both	sweets, protein	medium size (1/8-1/4 in), abdomen heart-shaped and attached towards the top, not straight from the side
<b>Big-headed</b>	<i>Pheidole</i>	46	dimorphic	polygyne	sweets, protein	small to medium size (1/16-1/4 in), spines on thorax, antennal club of 3 segments
<b>Pavement</b>	<i>Tetramorium</i>	3	monomorphic	polygyne	sweets, oil	medium size (1/8-1/4 in), head covered with grooves, dark brown in color, spines on thorax
<b>Little fire</b>	<i>Wasmania auropunctata</i>	0	monomorphic	polygyne	sweets, oil, protein	small (1/16 in), light reddish to golden brown in color, antennal club of 3 segments, head with grooves