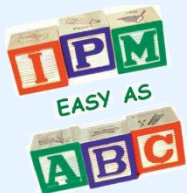
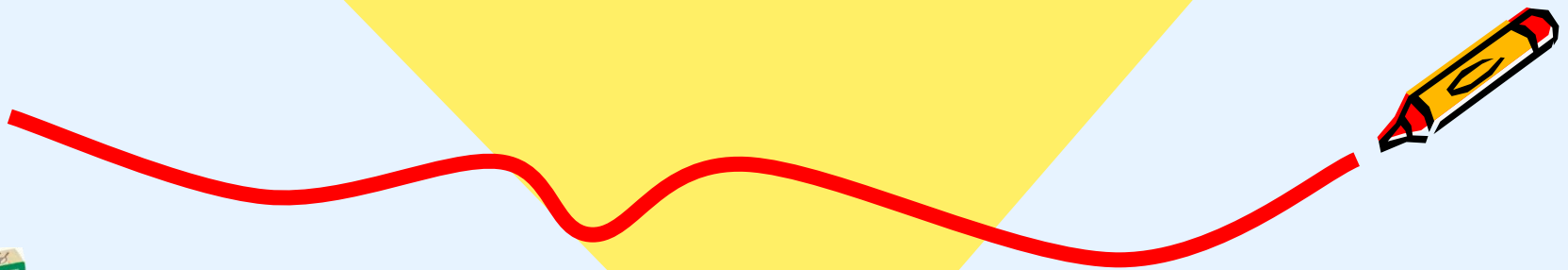


Managing Ants Safely in and around Sensitive Environments

Nebraska Extension



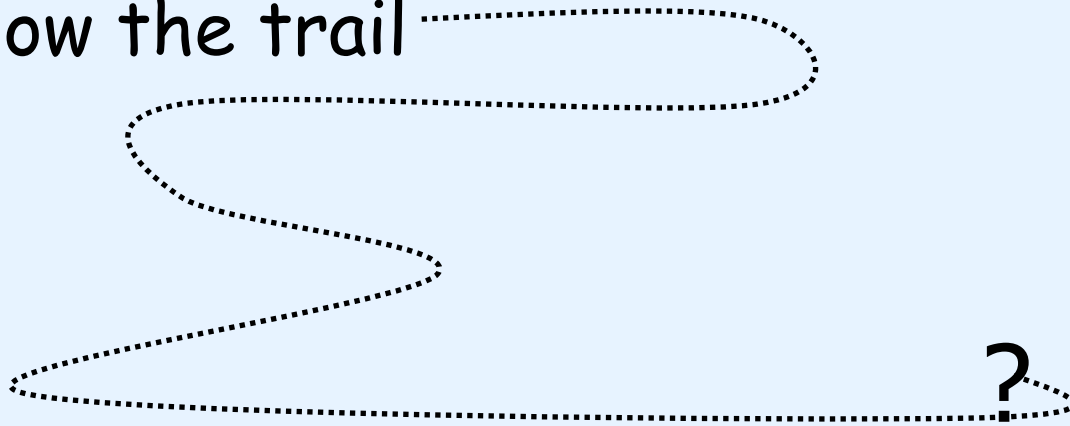
Successful ant management means treating the colony

- ❖ Direct treatment with insecticides
- ❖ Bait treatments for some species
 - Both types of treatments can be done using low risk approaches
- ❖ So, locate the colony
 - Knowing the type of ant can help you find it



Ant colonies can be found outdoors or indoors

- ❖ Wet or rotted wood, under concrete slabs
- ❖ In soil, under objects or in the open
- ❖ Inside walls if there is a moisture source
- ❖ Follow the trail



...the colony location determines
the treatment



Ant treatments include:

- ❖ Treating ant mounds or nests in the soil with liquids

- ❖ Wall voids: inject dusts

- ❖ Direct treatments of active trails

- ❖ Baits: granular, syrup, and gel baits

 - Not all ants will eat baits

 - Broadcast treatments and baseboard sprays are hardly ever effective because they don't target the colony



Hand lens or microscope magnify ant parts



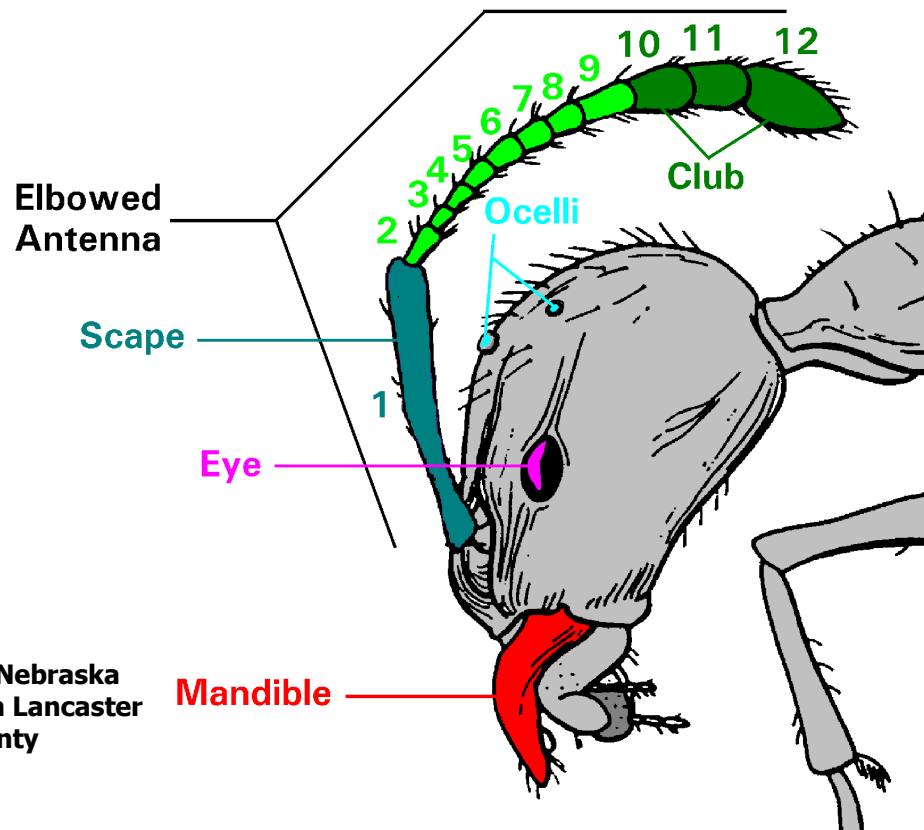
Photo: Nebraska Extension
in Lancaster County

- ❖ Your pest control professional may be able to identify specimens
- ❖ Or, take specimens to your local county extension office
- ❖ Or, send them to the UNL diagnostic lab in Lincoln:
 - Plant and Pest Diagnostic Clinic
448 Plant Sciences
P.O. Box 830722
Lincoln, NE 68583-0722
Phone: (402) 472-2559



Knowledge of ant parts needed to identify ants

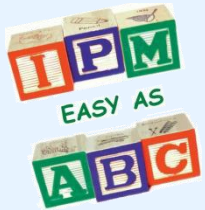
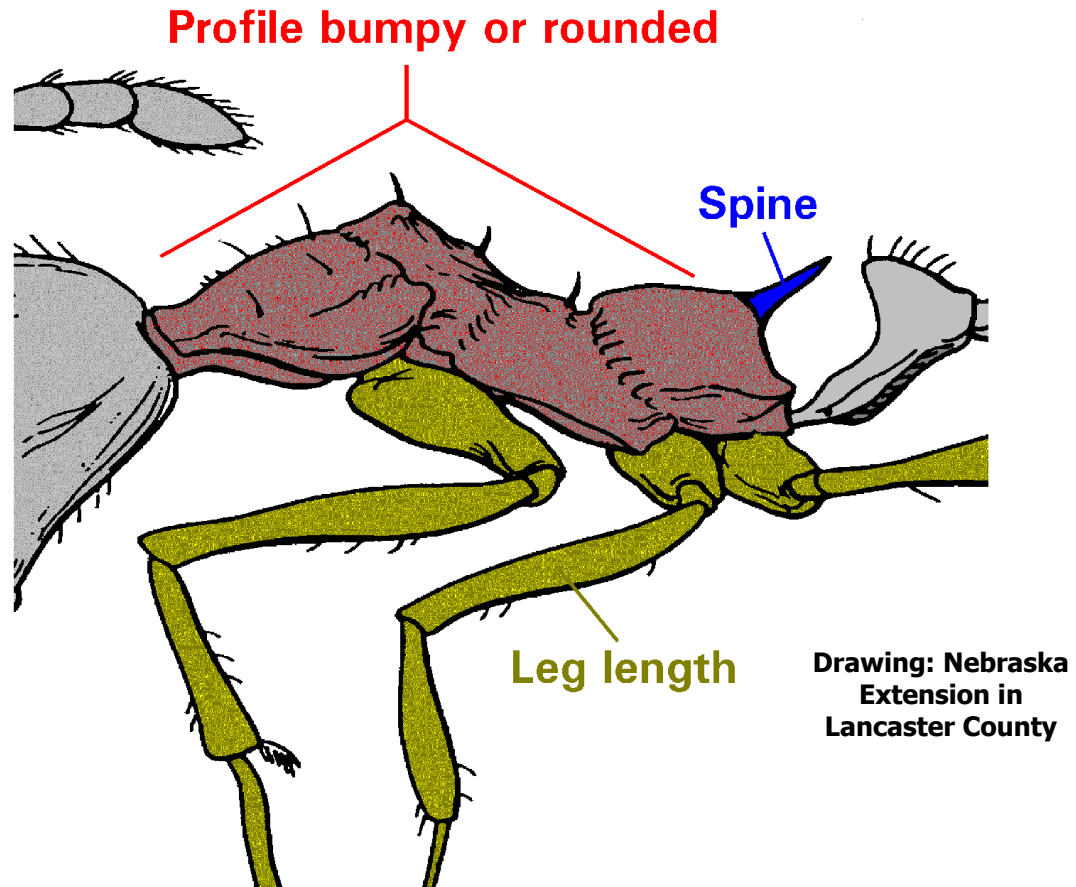
Head: Diagnostic Features



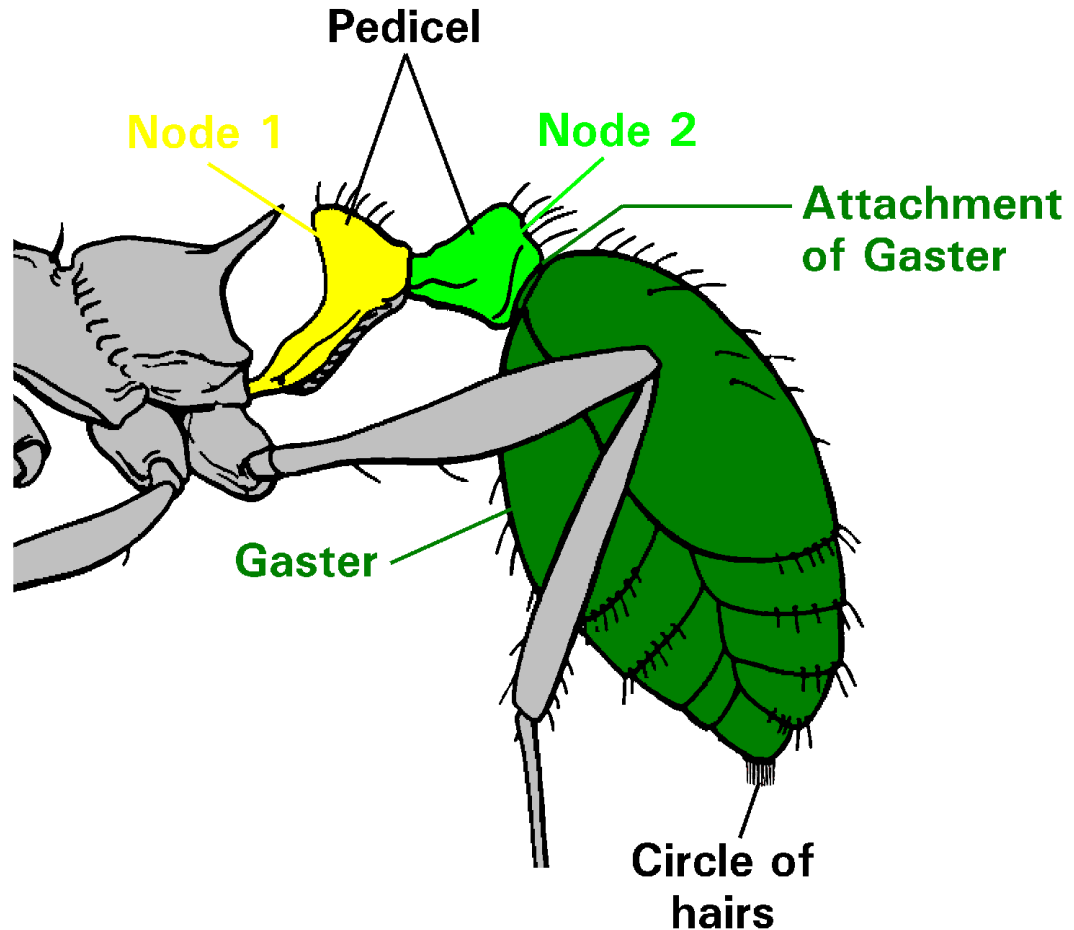
Drawing: Nebraska
Extension in Lancaster
County



Thorax: Diagnostic Features



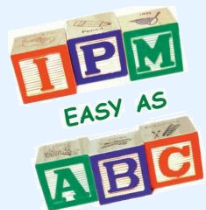
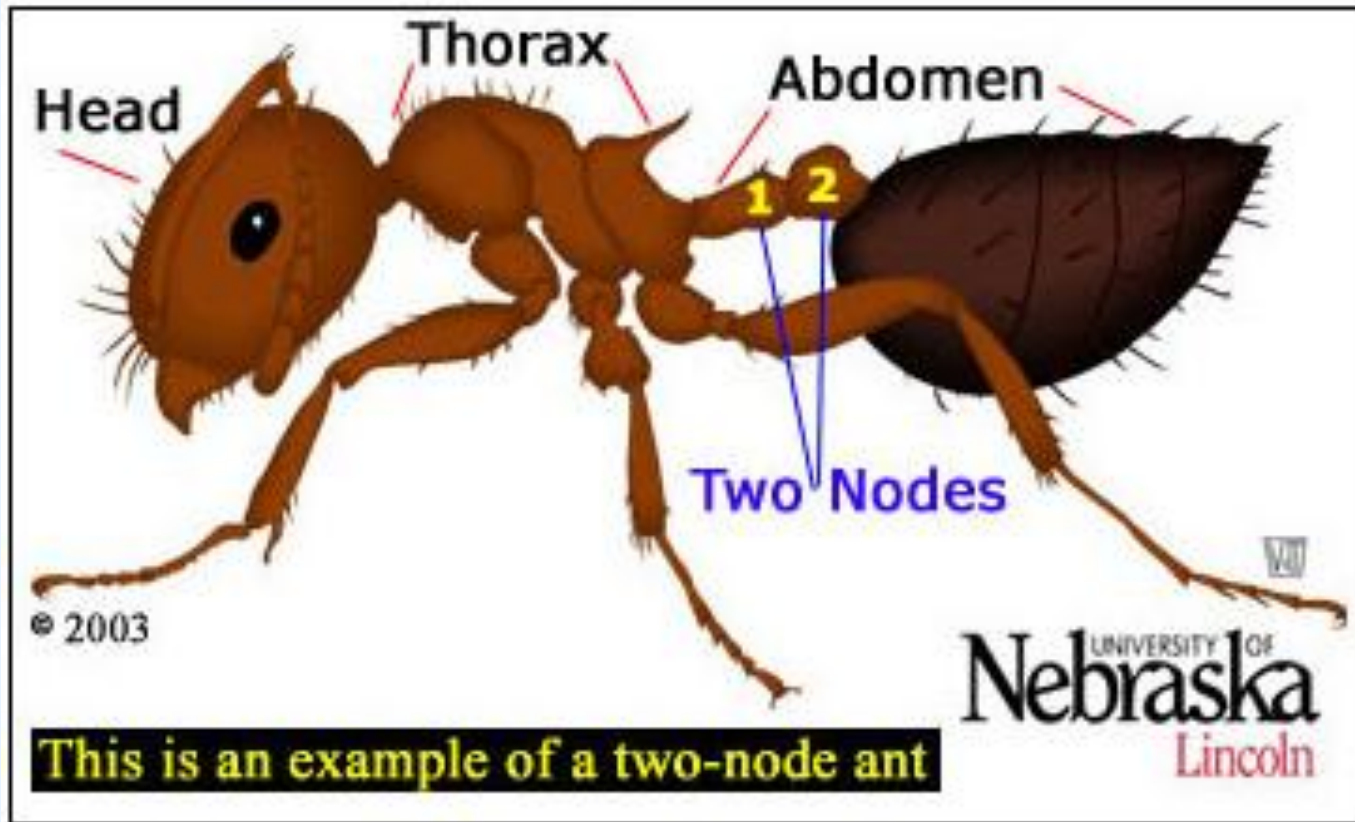
Abdomen: Diagnostic Features



Drawing: Nebraska
Extension in Lancaster
County



Number of nodes is an important diagnostic feature



One-node Ants

- ❖ Rounded or lumpy thorax
- ❖ Smell
- ❖ Length of scape
- ❖ Hidden node
- ❖ Ocelli (simple eyes)

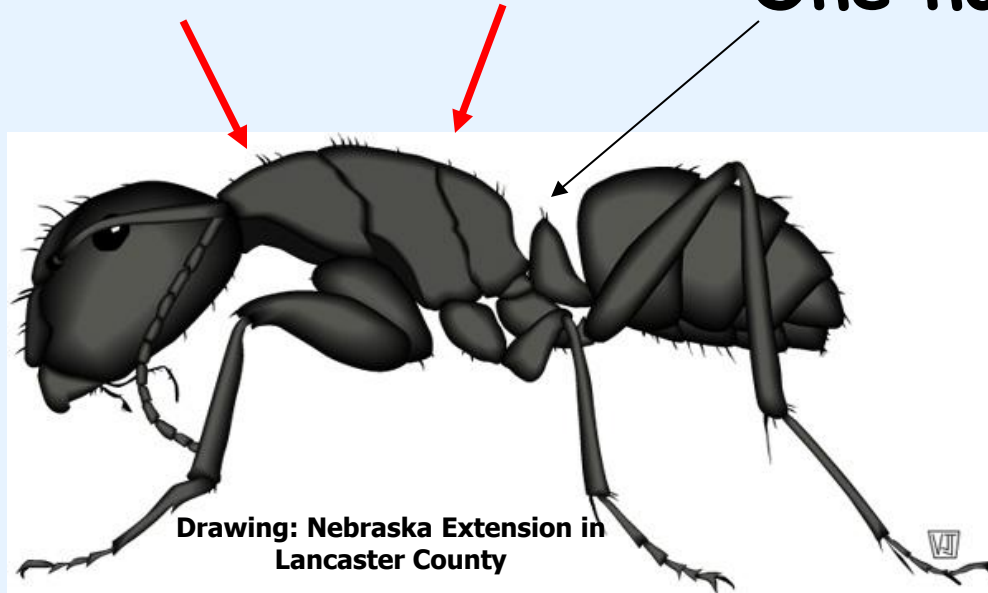


Photo: Nebraska Extension in Lancaster County



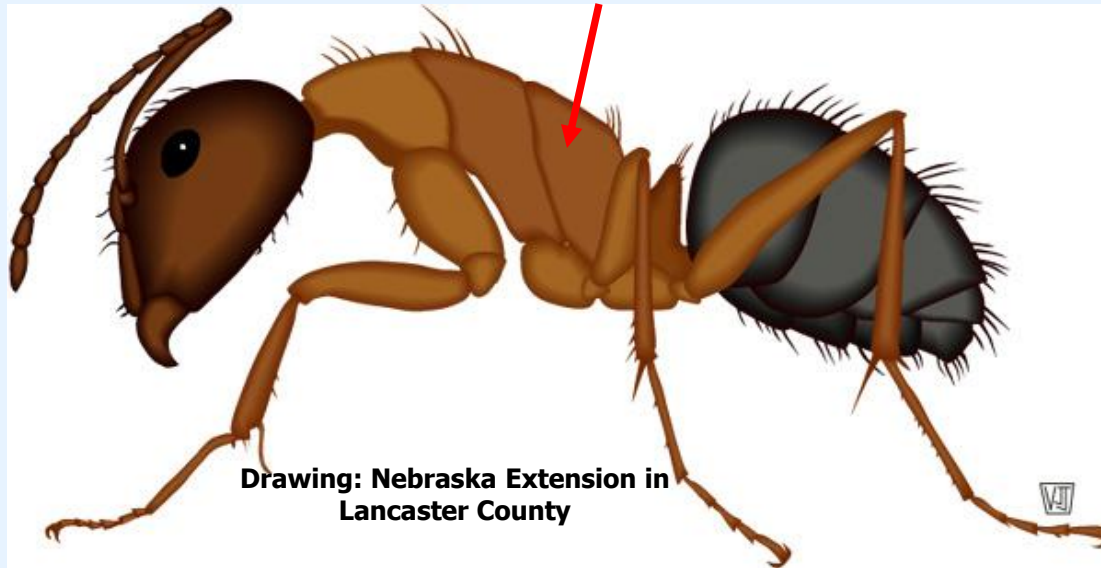
Examples of one-node ants: Black Carpenter Ant

- ❖ Large black ants
- ❖ Dimorphic (two sized) workers
- ❖ Evenly rounded thorax **One node**



"Red" Carpenter Ant

- ❖ Red head and thorax
- ❖ Medium sized
- ❖ Evenly rounded thorax

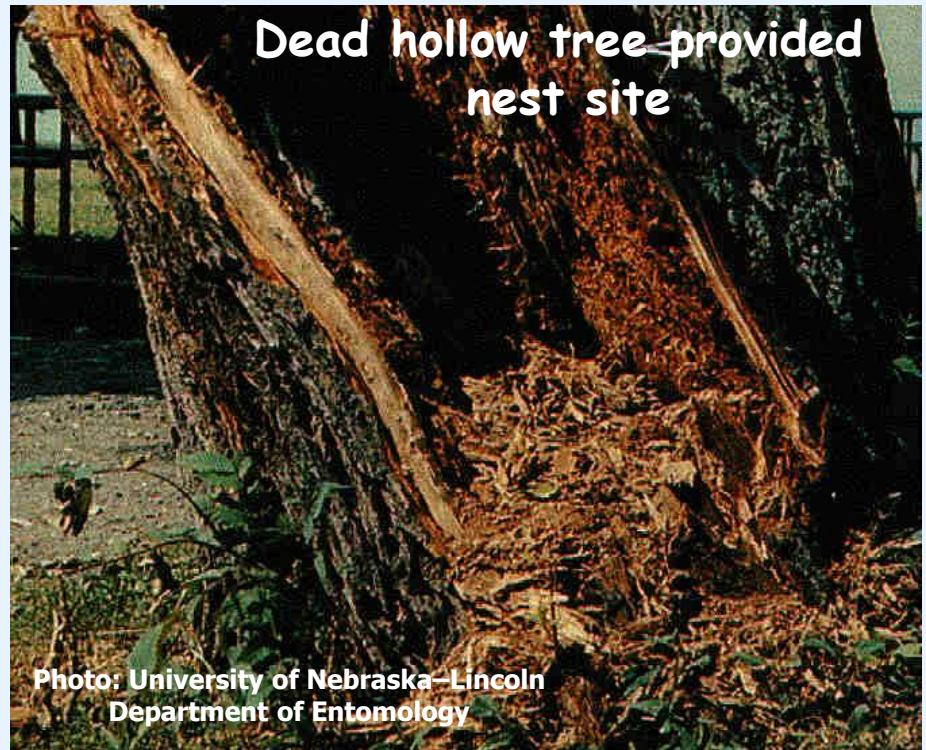


Drawing: Nebraska Extension in
Lancaster County



Carpenter Ants live in wet wood

- ❖ Dead tree limbs and hollow trees
- ❖ Landscape timbers/railroad ties
- ❖ Carpenter ants don't kill trees



Poorly maintained log houses susceptible to Carpenter Ants

- ❖ Weathered logs allow water to penetrate
- ❖ Cracks make it easy for ants to get inside
- ❖ Perfect situation for Carpenter Ants



Discolored area below window
Indicates moisture damage



Poorly maintained log houses susceptible to Carpenter Ants

- ❖ Weathered logs allow water to penetrate
- ❖ Cracks make it easy for ants to get inside
- ❖ Ideal location for Carpenter Ant colony

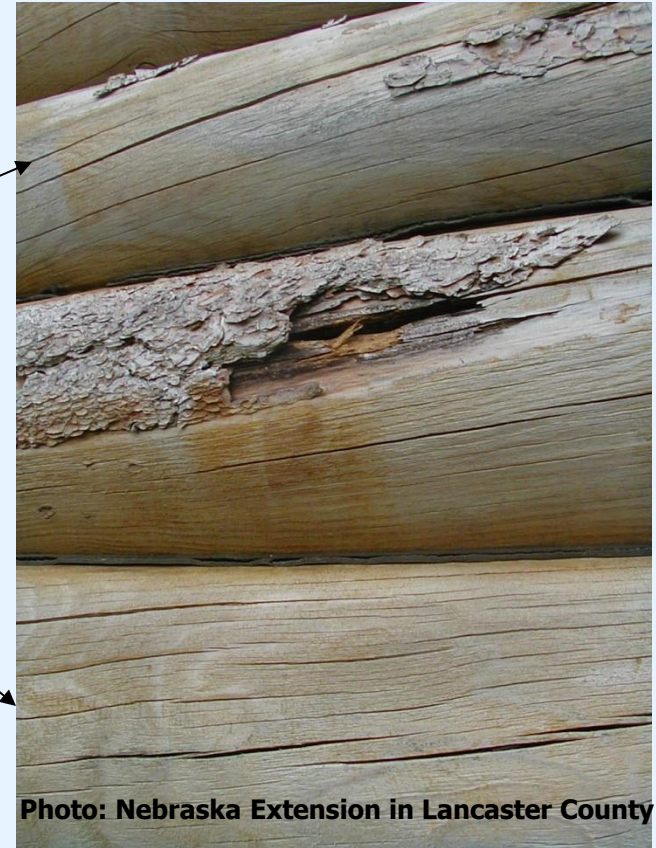
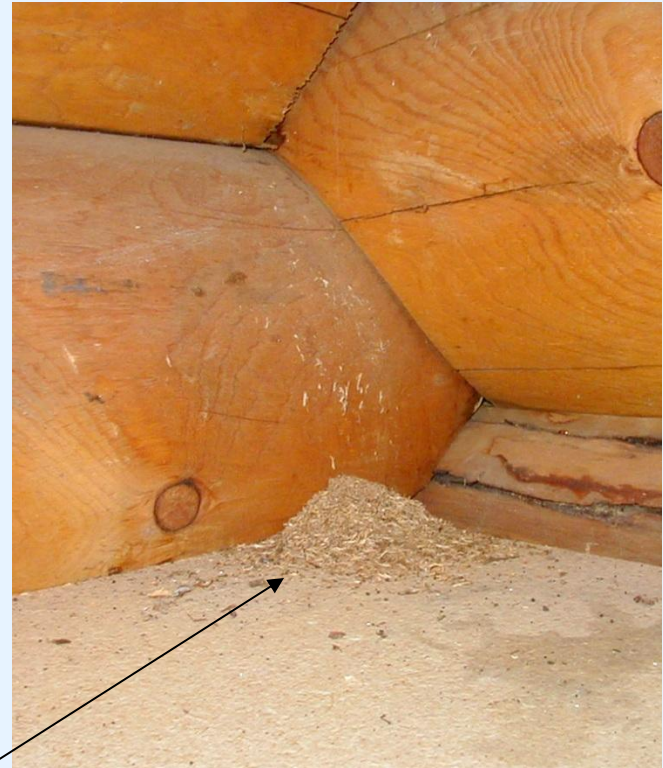


Photo: Nebraska Extension in Lancaster County



Piles of sawdust are a sign of Carpenter Ants



Photos: Nebraska Extension
in Lancaster County

Sawdust



Carpenter Ants not common in institutional and commercial buildings

But.....

- ❖ May be found on grounds in landscape timbers, railroad ties, hollow trees
- ❖ Also structures susceptible to moisture infiltration



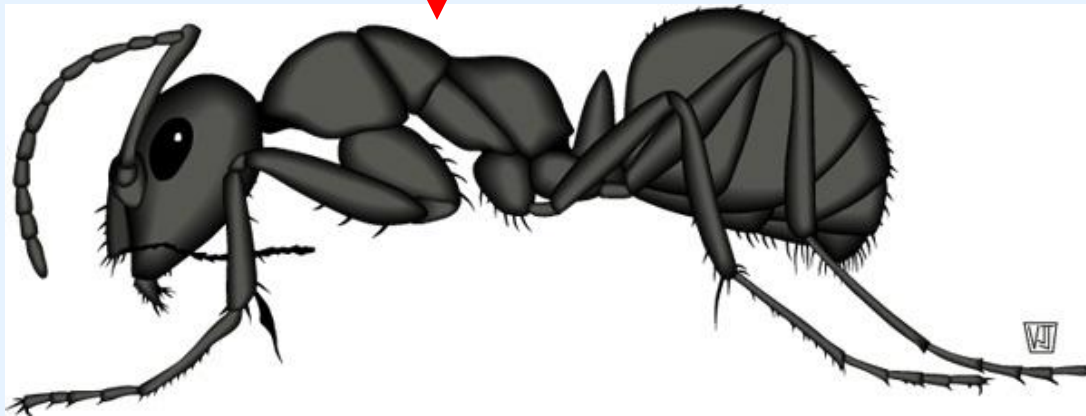
Field Ant

- ❖ Large ants resemble Carpenter Ants
- ❖ Variable color
- ❖ "Bumpy" thorax

3 ocelli



Drawings: Nebraska Extension
in Lancaster County



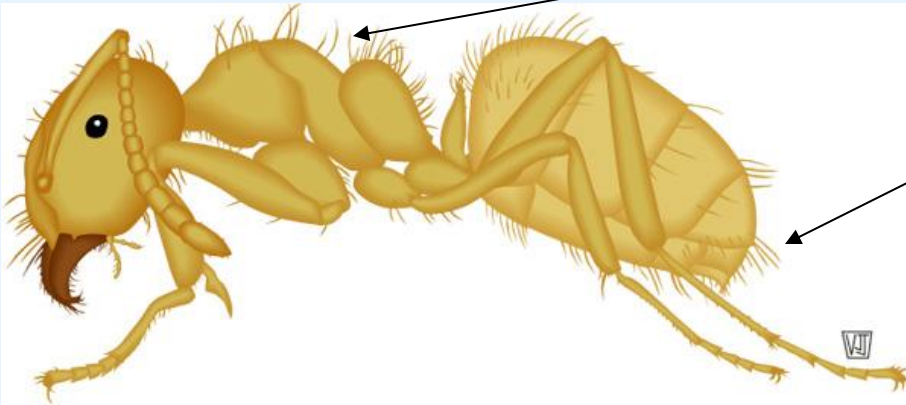
Field Ants construct mounds and live in soil

- ❖ Rarely, if ever, found inside, but look like carpenter ants
- ❖ Playgrounds, fields, vacant lots, and lawns
 - Also nest under rocks, patio blocks, firewood, and similar objects
- ❖ Treat mounds or use granulated baits

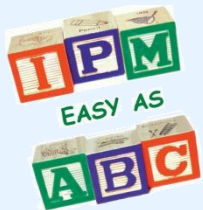


Large Yellow Ant: Citronella Ant

- ❖ Yellowish red
- ❖ Uneven thorax
- ❖ Circle of hairs
- ❖ Smells like lemon when crushed



Drawing: Nebraska Extension in Lancaster County



Citronella Ant workers rarely found inside

- ❖ Soil nesting ant, under concrete slabs, garages, basements, crawlspaces
- ❖ Excavate soil
- ❖ Emerge from nest as winged swarmers
- ❖ Inside, swarmers die quickly on their own so no treatment is necessary

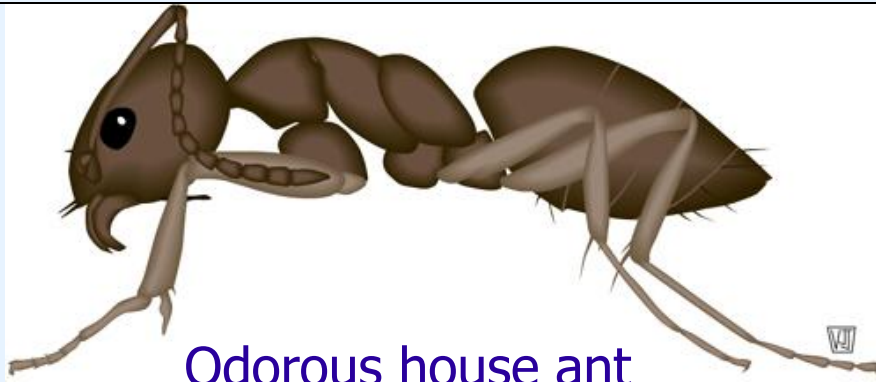
Photo: University of Nebraska–Lincoln
Department of Entomology



Large Yellow Ant Swarmers



A couple more one-node ants: sweet-loving ants

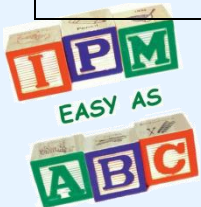


- ❖ Common pest ant
- ❖ Smell like coconuts
- ❖ Node is hidden from above

- ❖ Honey ant has a pinched waist and swollen gaster



Drawings: Nebraska Extension in Lancaster County



Sweet ants usually invade from outdoors

- ❖ Treat outdoor colonies with a small amount of insecticide
- ❖ Compressed air sprayer/crack and crevice tip
- ❖ Baits may also be effective for sweet ants



Odorous House Ants may nest inside

- ❖ Areas with accessible moisture
 - Wall voids around hot water pipes and heaters
 - Greenhouses
 - Bathrooms
 - Dishwashers/kitchens

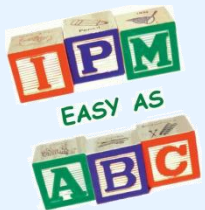


Features of two- node ants

- ❖ Spines on thorax
- ❖ Number of antennal segments
- ❖ Color
- ❖ Attachment of pedicel
- ❖ Grooves on head



Photo: Nebraska Extension in Lancaster County

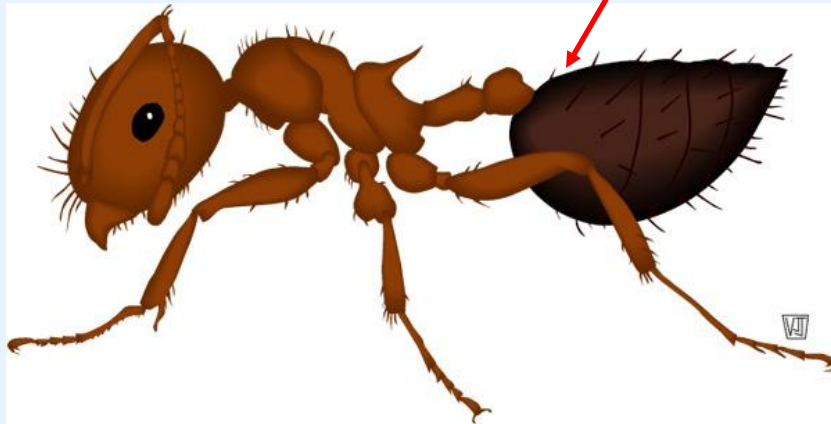


Acrobat Ant

- ❖ Spines on thorax
- ❖ Pedicel attached to top of gaster



Photo: University of Nebraska–Lincoln Department of Entomology



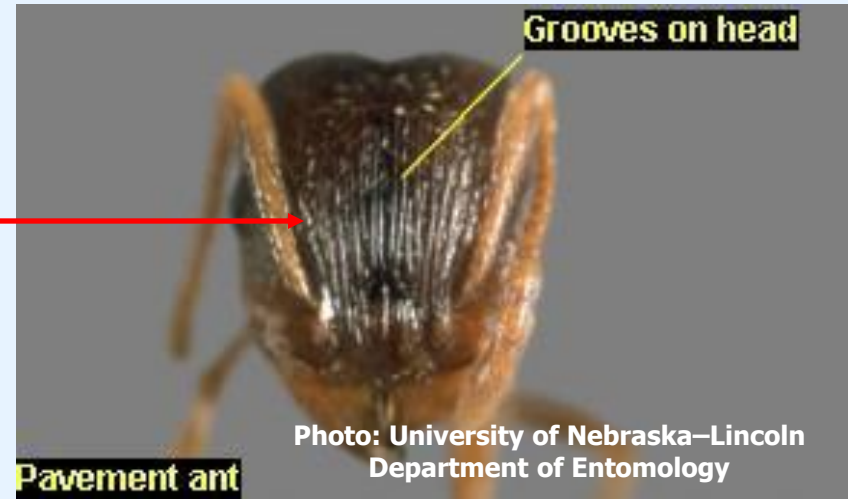
Drawing: Nebraska Extension in Lancaster County

- ❖ Heart-shaped abdomen
- ❖ Live in wet wood

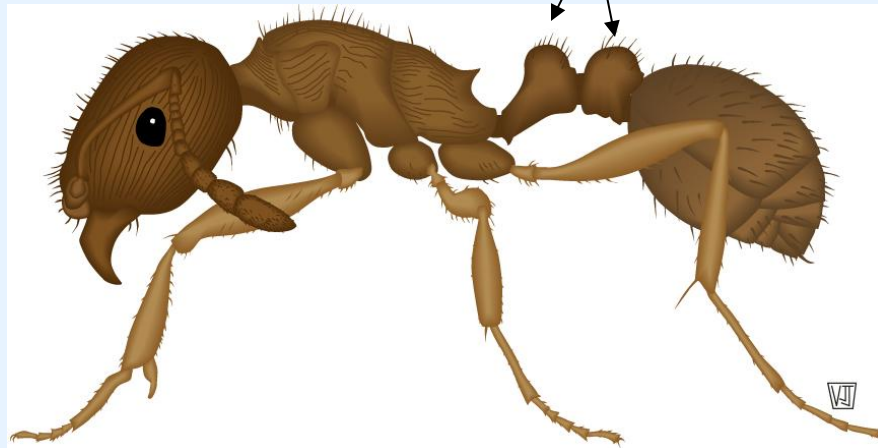


Pavement Ants have two nodes

❖ Key feature: grooves on face on face



Drawing: Nebraska Extension in Lancaster County



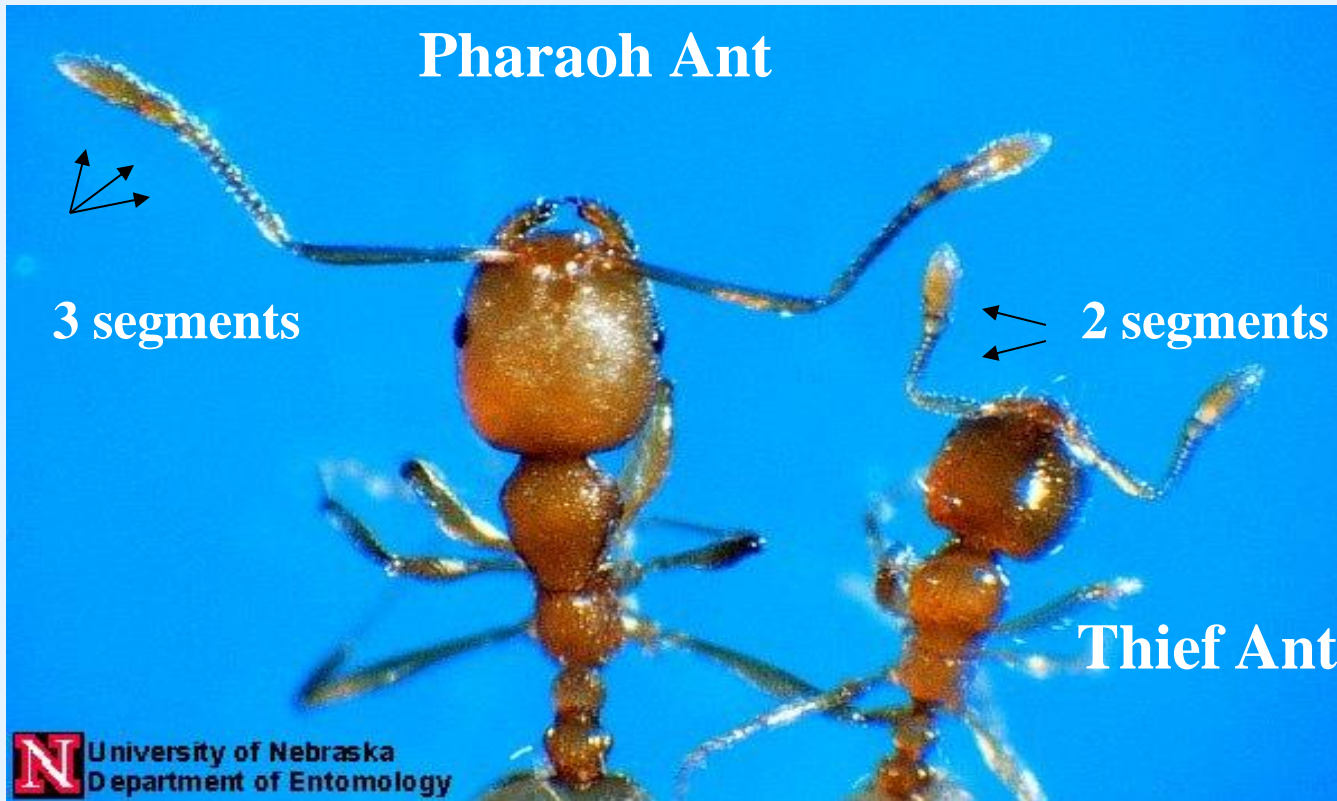
Nest under pavement, bricks, sidewalks

Common around buildings

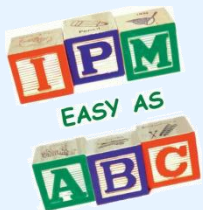
Treat colonies with insecticide or use baits



Pharaoh Ants and Thief Ants are tiny, yellowish ants



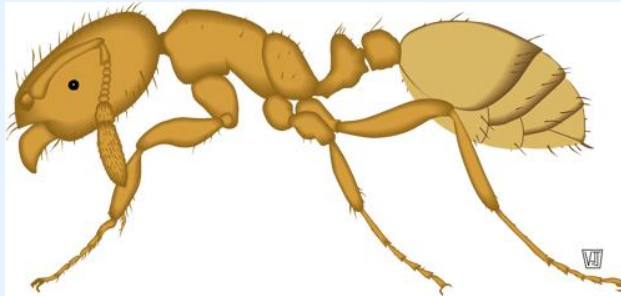
Count the number of segments on the antennal club



Management is completely different

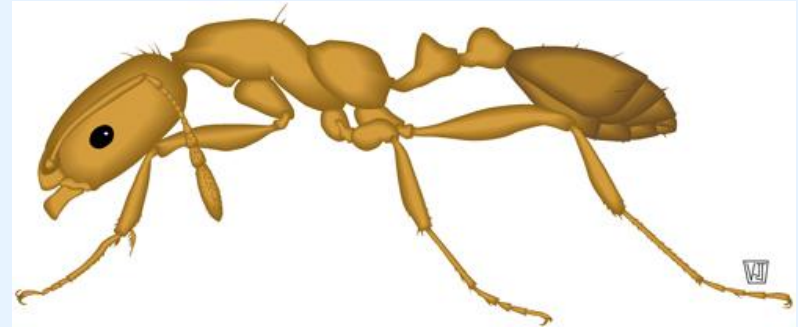
❖ Thief Ant

- Baits don't work, must find and treat colony



❖ Pharaoh Ant

- Colonies split when sprays are used. Must use baits

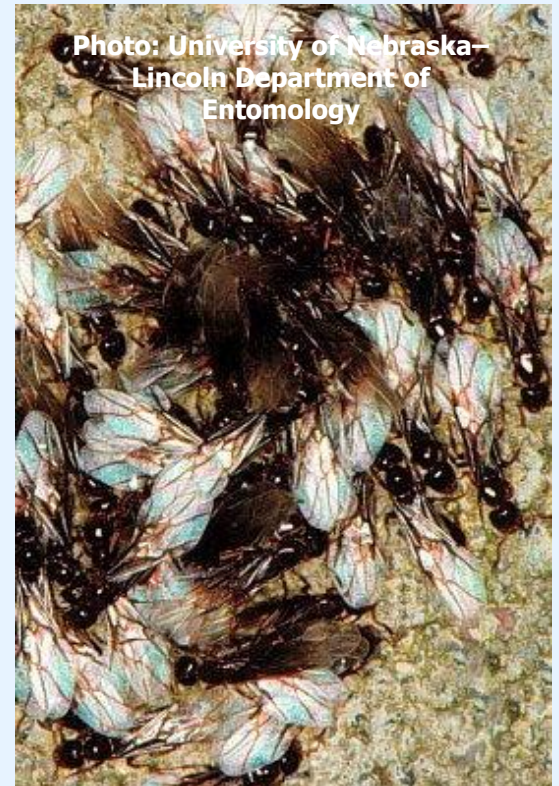


Drawings: Nebraska Extension in Lancaster County

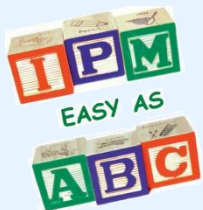


What are swarmers?

- ❖ Reproductive ants
- ❖ Swarming ants inside means an indoor nest, a nest under a concrete slab, or a nest next to a foundation
- ❖ Swarmers have some characteristics of workers
 - Same number of nodes, smell, grooves on head



Carpenter Ant swarmers



Winged ants don't look like worker ants

- ❖ Swarmers may be larger (queens) or smaller (kings) than workers
 - May not be the same color as workers

Large yellow ant queen and worker



Summary

- ❖ Ant identification can be important in determining where colonies are located and what types of treatments are most appropriate



Ant management resources

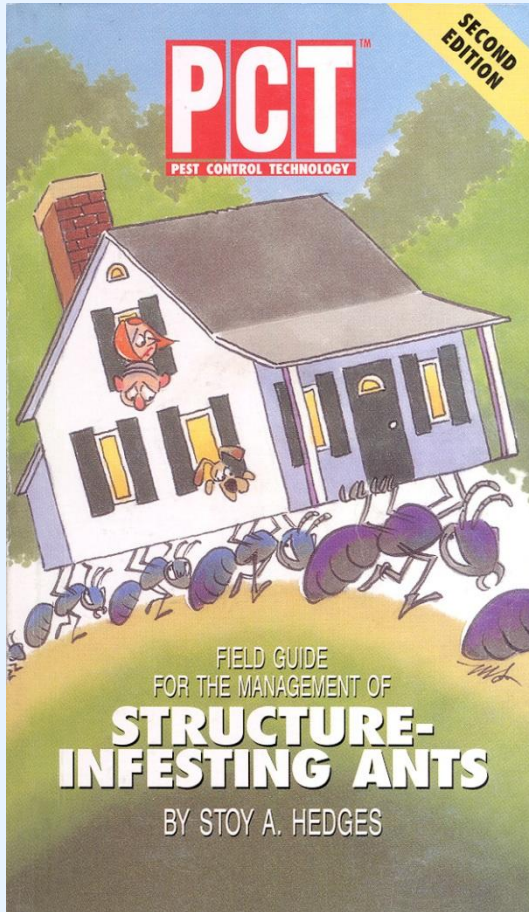


Photo: Nebraska Extension in Lancaster County

- ❖ *Pest Control Technology (PCT) Field Guide for the Management of Structure Infesting Ants*
- ❖ Inexpensive
- ❖ Sold through PCT online or Amazon.com



Ant management resources

University of Nebraska Cooperative Extension EC04-1570

Identification of Structure-Invading Ants in Nebraska

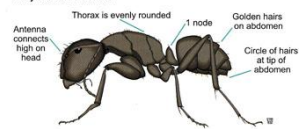
Barbara Ogg, Extension Educator
Vicki Jedlicka, Publication and Resource Assistant
Clyde Ogg, Extension Educator — Pesticide Education
Shripai T. Kamble, Extension Urban Entomologist

One-Node Ants

Black Carpenter Ant

Camponotus pennsylvanicus

Many sizes of workers.

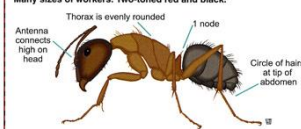


Actual size
Major workers: about 7/16" Minor workers: about 1/4"

"Red" Carpenter Ant

Camponotus sayi

Many sizes of workers. Two-toned red and black.

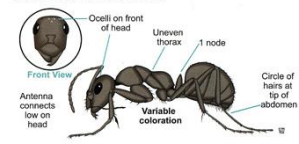


Actual size
Major workers: about 1/4" Minor workers: about 3/16"

Field Ant

Formica spp.

Field ants may be black, brown, tan, reddish, or red and black. Often confused with carpenter ants.

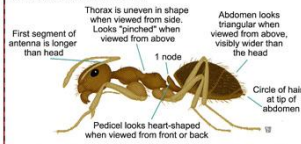


Actual size
about 3/8"

Small (False) Honey Ant

Prenolepis imparis

When these ants are swollen (full of food), the gasters (abdomen) are greatly enlarged and shiny.

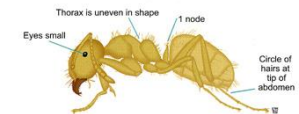


Actual size
about 1/8"

Large Yellow Ant

Acanthomyops interjectus

Also called citronella ant or foundation ant. Gives off "lemony" odor when crushed.

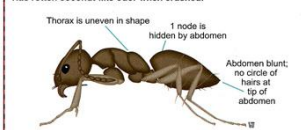


Actual size
about 1/4"

Odorous House Ant

Tapinoma sessile

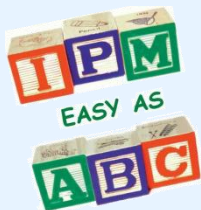
Has rotten coconut-like odor when crushed.



Actual size
about 1/8"

- ❖ Identification of Structure-Invading Ants in Nebraska
- ❖ Colorized pictures
- ❖ Focus on 12 ant structure-invading species specific to Nebraska
- ❖ UNL Publications or county extension offices
- ❖ <http://ianrpubs.unl.edu/>, search for title

Photo: Nebraska Extension in Lancaster County



Credits

❖ Content Specialist

- Barbara Ogg, Nebraska Extension Educator Emeritus

❖ Content Editor

- Erin Bauer, Nebraska Extension

❖ Photos

- Barbara Ogg, Nebraska Extension Educator Emeritus



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Credits

❖ Photos cont.

- Vicki Jedlicka, Nebraska Extension in Lancaster County
- James Kalisch, Department of Entomology, University of Nebraska-Lincoln
- Department of Entomology, University of Nebraska-Lincoln



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