ANTS: IDENTIFICATION & MANAGEMENT

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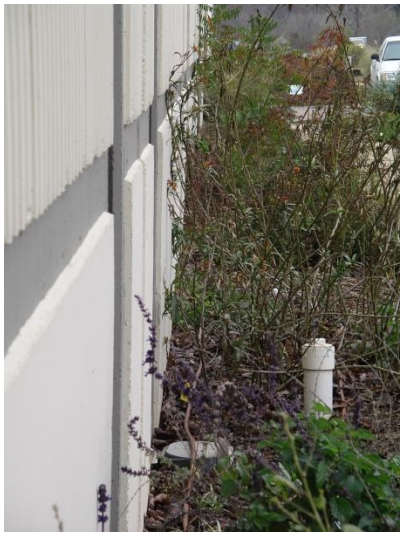
Why Manage Ants?

- Common pest
- Invade human food resources
  - May vector bacteria, etc.
- Threaten human health
  - Bites & stings

Steps of IPM

- Monitor
  - Includes proper pest identification
- Determine action threshold
- Formulate IPM plan
- Implement IPM plan
  - Keep records
- Assess IPM plan
  - Make necessary changes

Step 1- monitoring



Gunther Home Inspections

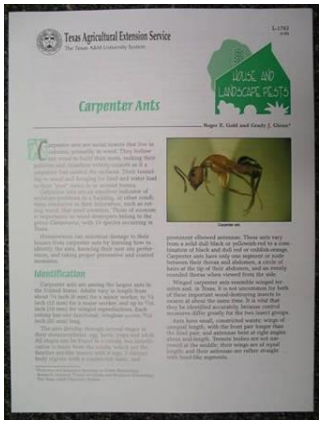
- Visual inspection
  - Check areas
    - Entry areas
    - Near water
    - Near food
    - Harborage areas

Monitoring- possible locations

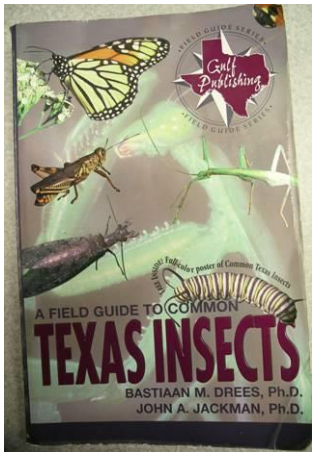
Monitor- proper identification

- Obtain correct information about pest
  - Different pests have different control strategies
- Capture the insect
- Take a photograph or digital image of the pest

Monitor- proper identification

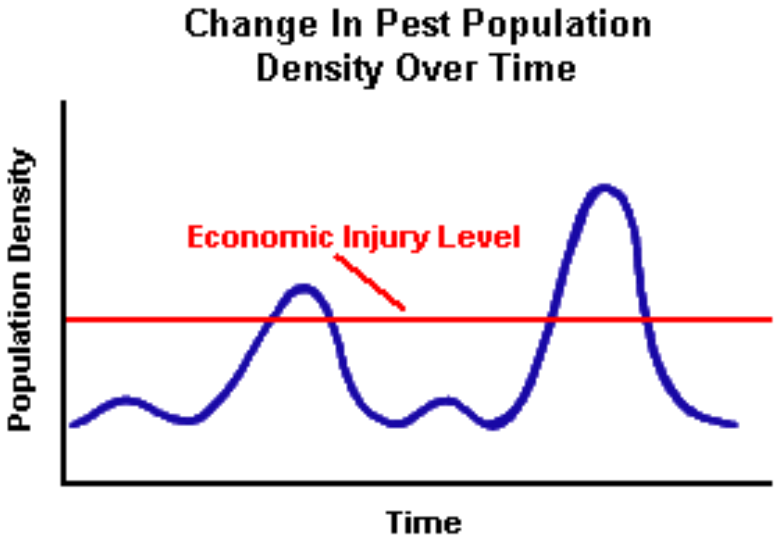


- Use a field guide or literature to identify the pest yourself
- Use local extension agent



Step 2- action threshold

- Economic injury level
- Aesthetics
- Health risk

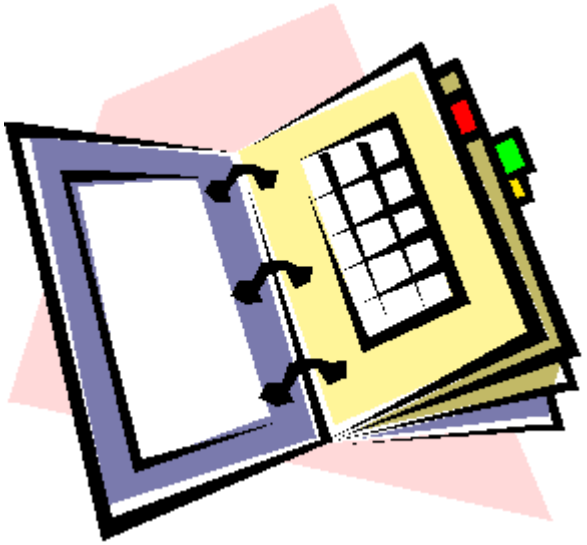


Step 3- formulate plan

- Things to consider
  - Products available
  - Cost
  - Time management
  - Equipment required
  - Safety

Step 4- implement plan

- Record keeping
  - What chemicals applied
  - Pest
  - Percentages/ amounts
  - Application location
  - Dates, etc.
- Logbook
  - Report pest problems in central location



Step 5- assess plan

- What worked?
- What didn't work?
- What could be better?
- Make changes

Cultural Control

- Modifications to normal procedures to reduce or avoid pest problems
- Sanitation

Home Zada

Growing Wisdom

California Home Design

Cultural Control- Sanitation
Things to watch for/ fix

See Click Fix

York blog

Fresh Organic Gardening

Homeowners Hub

Cultural Control- sanitation

Steamaway

- Take out garbage regularly
- Clean garbage cans, recycling cans & dumpsters
- Reduce debris
- Repair leaky faucets

Embark Services

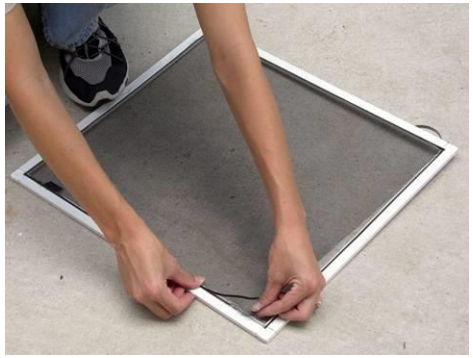
Mechanical Control

- Use of labor, materials (not pesticides) & machinery to reduce pests
- Exclusion
- Handpicking
- Spraying high-pressured water

Mechanical Control- Examples

- Physically remove ants from area
  - Vacuuming, shoveling, squashing
- Trim back trees & shrubs
- Weather stripping
- Stuff weepholes
- Caulk in cracks & crevices
- Store food in sealed containers

Mechanical Control- Exclusion



Physical Control

- Environmental manipulations that indirectly control pests
- Altering light, humidity, temperature

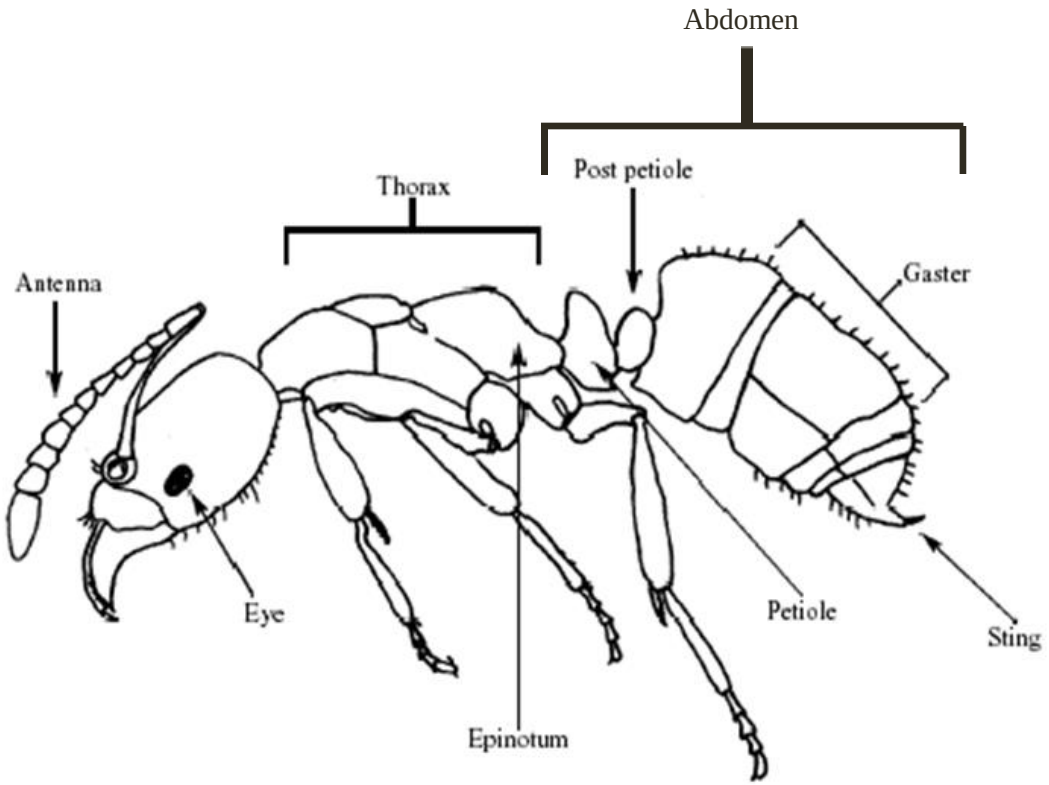
Biological Control- fire ants

Photo by L.E. Gilbert

Photo by USDA ARS

- Phorid fly species
  - *Pseudodacteon* sp.
- Microsporidia: *Thelohania solenopsae*
  - Shorter life span

Basic Ant Morphology



Texas Leaf Cutting Ants

Atta texana

- Large- up to ½”
- Reddish ants
- Two nodes
- Spines on thorax & head
- Polymorphic
- Eat fungus
  - Strip foliage from plants
  - Fungus garden

Texas Leaf Cutting Ants

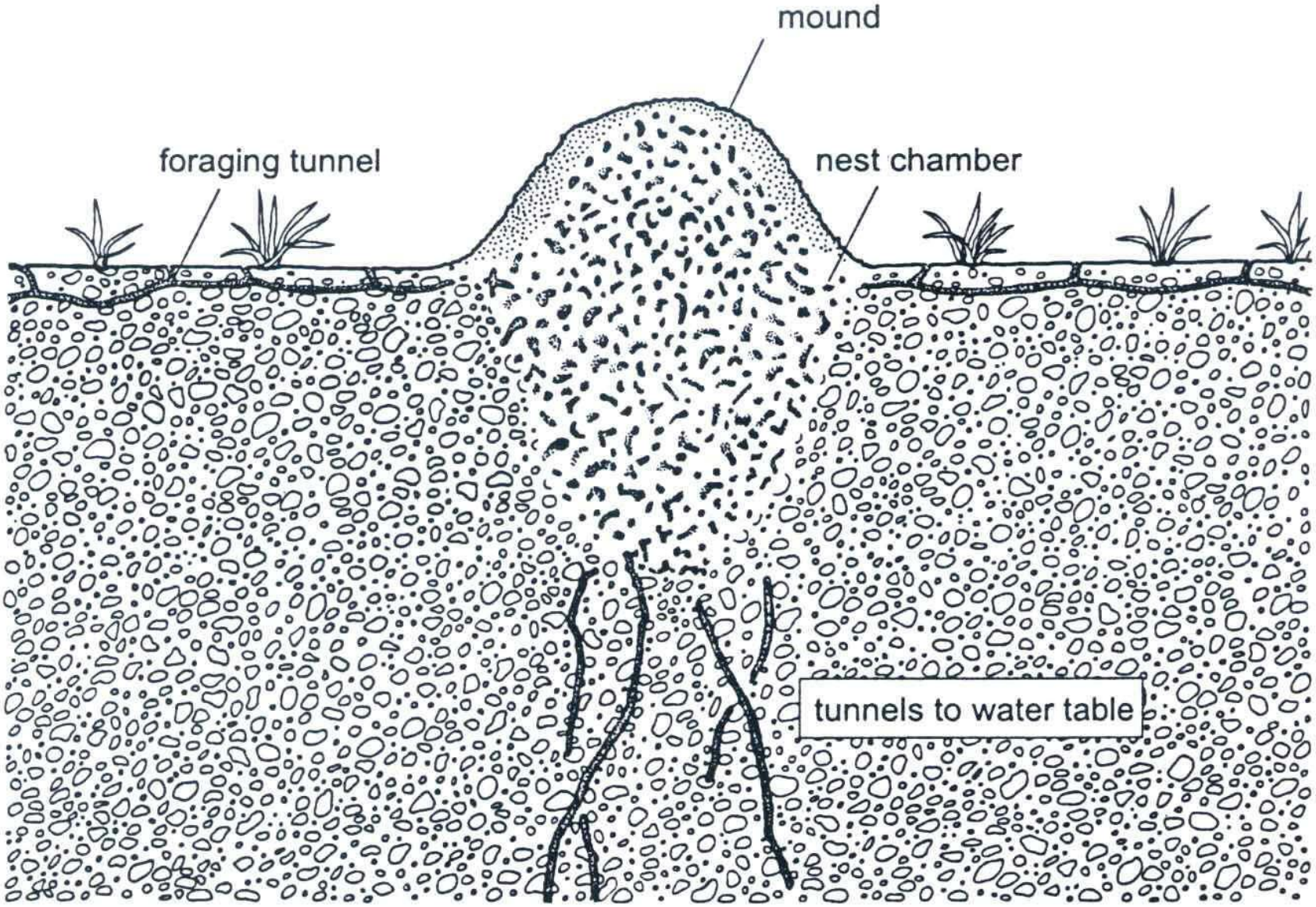
Atta texana

- Mounds raised with crater shape in center
  - Central opening
- May forage far from colony
- Baits
- Sprays, dusts

Red Imported Fire Ants

Solenopsis invicta

- Two nodes
- Sting present
- Eyes large
- Base of antennae covered
- Gaster not hung below post petiole
- 10 segmented antennae
  - 2 segmented club at end
- Red and black



Simplified cross section diagram of a red imported fire ant mound

Red Imported Fire Ants

Solenopsis invicta

- Bite & sting

- Broadcast baits
- Individual mound treatments
- Once a year treatment

Acrobat Ants

Crematogaster spp.

- Small to medium- 1/8-3/8”
- Yellow to black
- Two nodes
- Pair of spines on thorax
- 12 segmented antennae
- Heart shaped abdomen
  - Attached post petiole
- Eat insects, honeydew, sweets, meats
  - omnivores

Acrobat Ants

Crematogaster spp.

- Usually don't sting
  - Can bite
- Colony may be exposed, may be under things, may be in rotten wood, treeholes, shrubs
  - Couple thousand ants
- May protect honey dew producers on plants
- Baits
- Sprays, dusts

Harvester Ants

Pogonomyrmex sp.

- Large
- Red ants
- Two nodes
- 12 segmented antenna
- Spines on thorax
- Broad head with “beard”

- Eat seeds & are scavengers

Harvester Ants

Pogonomyrmex sp.

- Clear away grass in large patches & trails
- Potent sting
  - Not aggressive
- Encourage no management
  - Tilling, mowing area often

Rover Ants

Brachymyrmex spp.

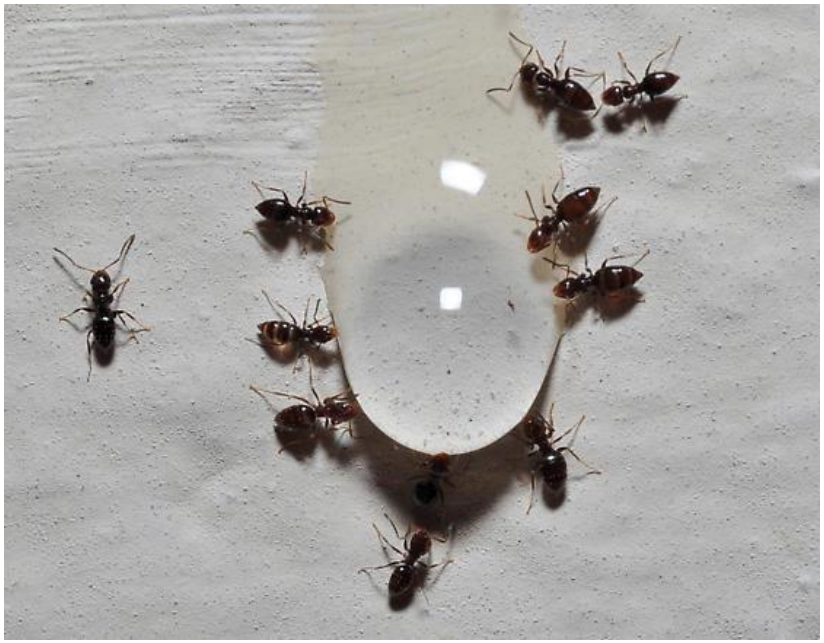
- Tiny (~ 1/16”)
- Dark brown to black
- One node
- Circle of hairs @ tip of abdomen
- 9 segmented antennae

Myrmecos.wordpress.com

Rover Ants

Brachymyrmex spp.

- Small colonies
  - Hundred to few thousand
  - Under things or in rotting wood
- Nuisance ant
- Mating flights
  - evening
- Baits



Daniel Dye II

Carpenter Ants

Camponotus spp.

- Large- ¼-1/2”
- Red, black or combo
- One node
- No sting
- No circle of hairs @ tip of abdomen
- Evenly rounded thorax
- Polymorphic

Msu.edu

Carpenter Ants

Camponotus spp.

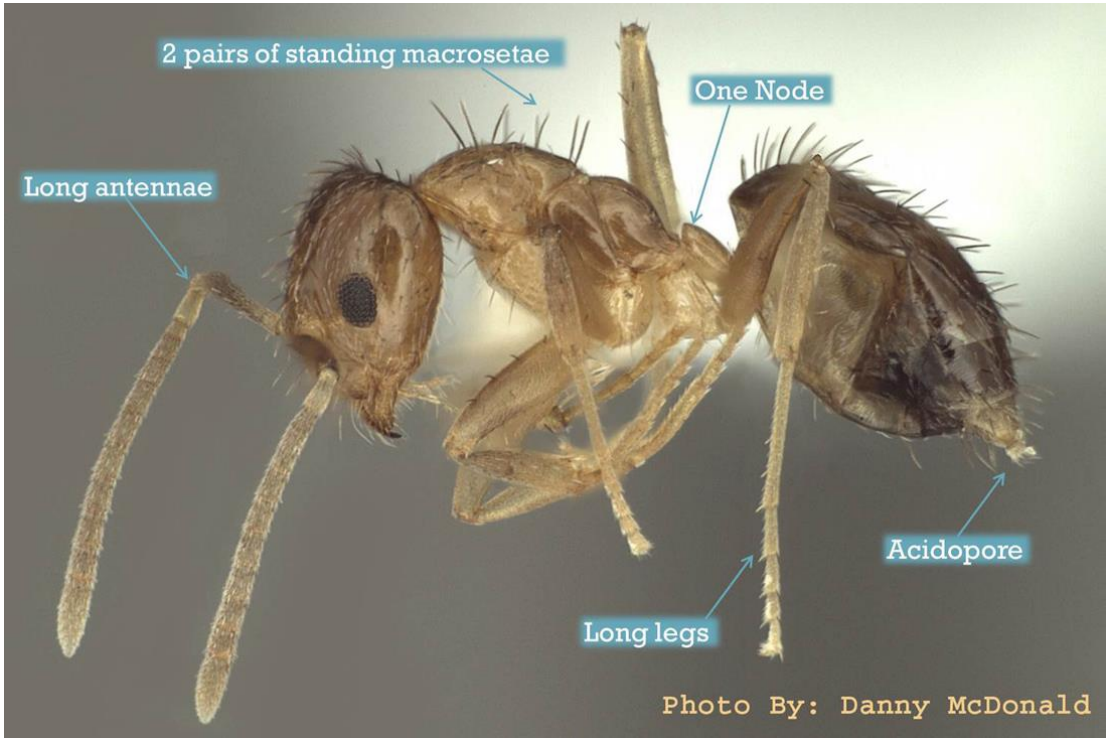
University of Minnesota

- Nest- hollow trees, logs, posts, landscaping timbers, wood in homes
  - Several hundred to thousands
  - Parent colony + satellites
- Eat live insects, honeydew, fungus associated with wood
  - Scavengers
- Baits
- Dusts, sprays

Tawny Crazy Ant

Nylanderia fulva

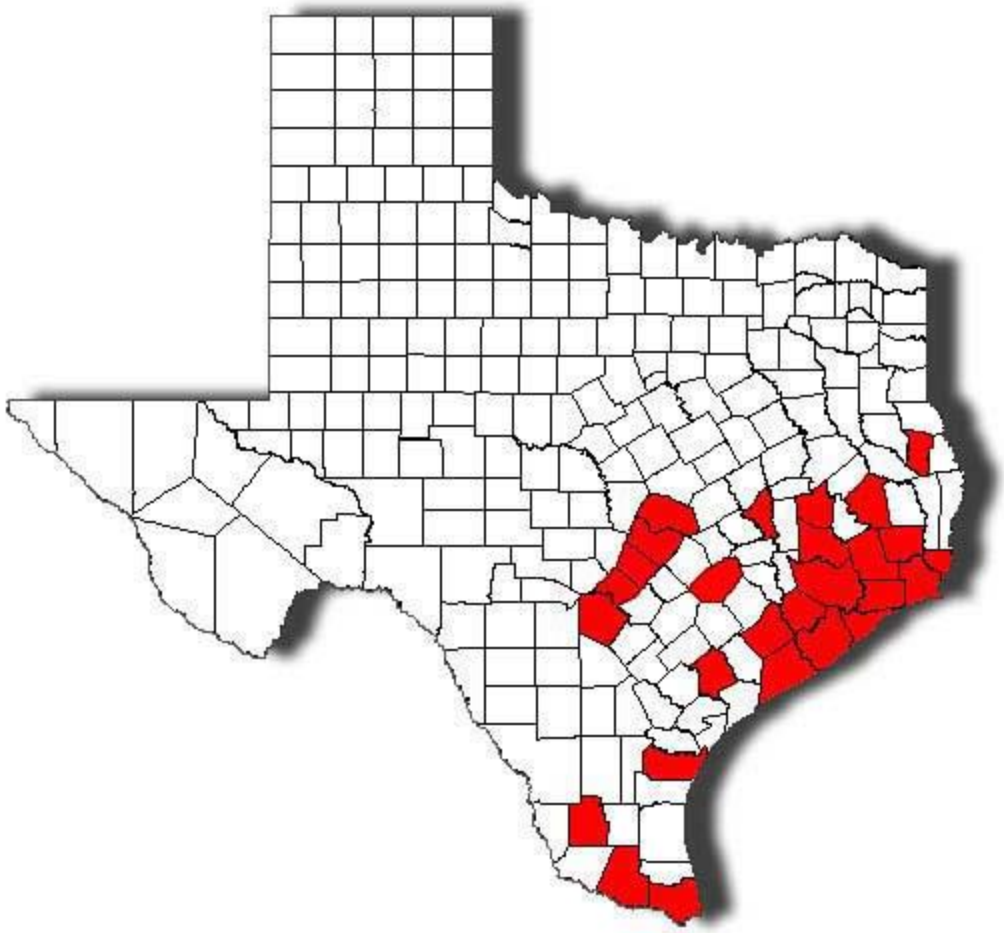
- One node
- No sting
- Circle of hairs @ tip of abdomen
- Light brown
- ~ 1/8” long
- Monomorphic
- Long legs & long antennae
- Numerous long, coarse hairs on body



Tawny Crazy Ant

Nylanderia fulva

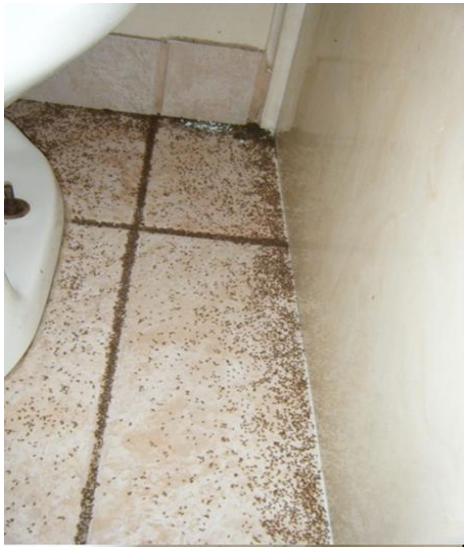
- **Found in 2002 in Harris Co.**
- **Currently confirmed in 27 counties**



Tawny Crazy Ant

Nylanderia fulva

- Large colonies or groups of colonies
  - Indistinguishable
- Polygyne (multiple queens)
- Trailing
  - Erratic
  - Wider than 10 cm
  - Follow structural lines



Tawny Crazy Ant

Nylanderia fulva

- Nesting
  - Under or in almost anything
  - Primarily outdoors but forage indoors
- Feeding
  - Omnivorous
  - Tend honeydew producers

Tawny Crazy Ant

Nylanderia fulva

- Treatment
  - Do not respond well to most baits
  - Use contacts to create buffer zone
    - AIs: pyrethroids, acephate, fipronil
  - Ants must be cleaned up between treatments

Black Crazy Ants

Paratrechina longicornis

- One node
- No sting
- Circle of hairs @ tip of abdomen
- Dark brown to black
- ~ 1/8” long
- Longer legs & longer antennae
- Monomorphic
- Eat honeydew, other insects, meat, grease, sweets & fruit

UofF

Black Crazy Ants

Paratrechina longicornis

- Run erratically
- May forage long distances
- Nuisance ant
- Nest under things, in trash piles, tree cavities, woodpiles
- Try baits, sprays, dusts

Argentine ants

Linepithema humile

- ~ 1/8", brownish
- One node, no sting
- No circle of hair @ abdomen tip
- No cone on thorax

- Monomorphic
- Eat- sweets, fresh fruit, and buds of some plants; tend honeydew-producers

- Introduced, exotic
  - South America

Argentine ants

Linepithema humile

- Dense foraging trails
- May invade homes
- Nuisance ant

- Large colonies- "supercolonies"
  - Polygyne
  - Budding
  - Outdoors- in soil, under wood, rocks, etc., in treeholes

- Baits, sprays

Contact information

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