

Urban Entomology

Some of the Insects that Live With Us

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Sources of Help

- Cooperative Extension (Extension)
 - Information, pamphlets, identifications
- Lawn Maintenance Operations
- Pest Control Operators (PCOs)
 - “Exterminators”
 - Deal with household/stored product pests
 - Deal with structural pests

Knowledge Can be a Key

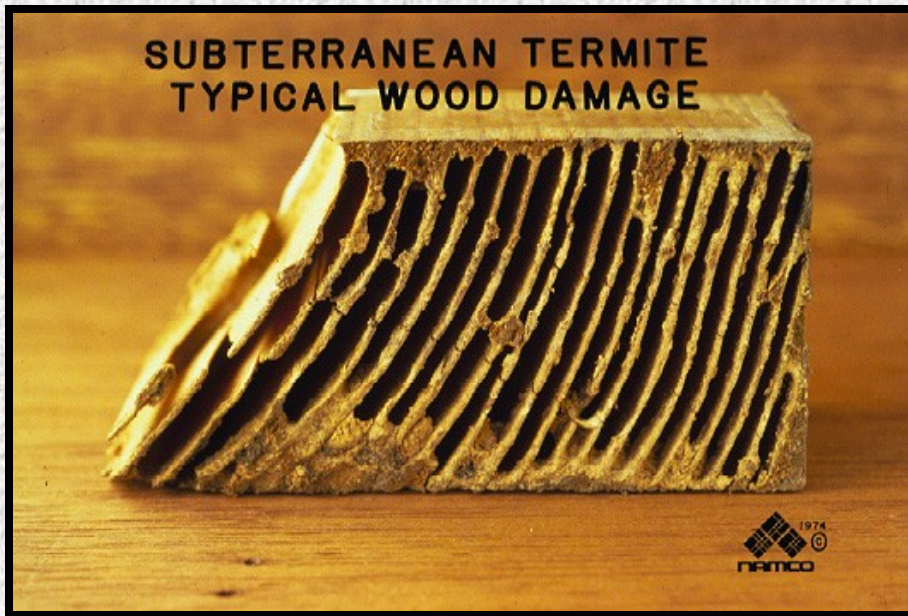
Not all ants are pests!

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Structural Pests

- Attack our homes, furnishings, out-buildings
 - Termites
 - Carpenter ants
 - Powderpost beetles

Termites



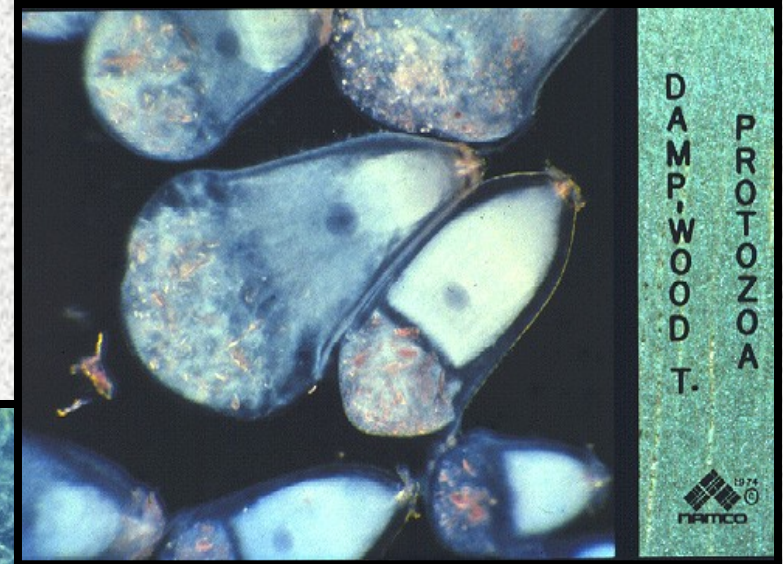
- Most important structural pest group
- \$1-3 billion/year in US
- More common in warm/humid situations
- Feed on cellulose - chief substance of wood

Termites are Social Insects

- Division of labor
- Specific reproductives - most are “workers”
- Termites
 - Reproductives
 - Soldiers
 - workers



Termites Eat Wood but cannot digest it!



Gut
symbionts

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Termites are not born with internal symbionts

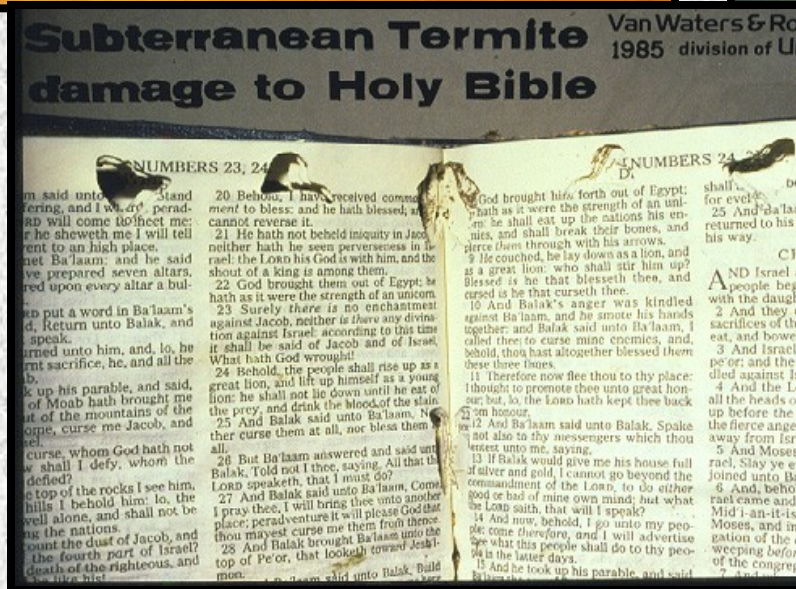
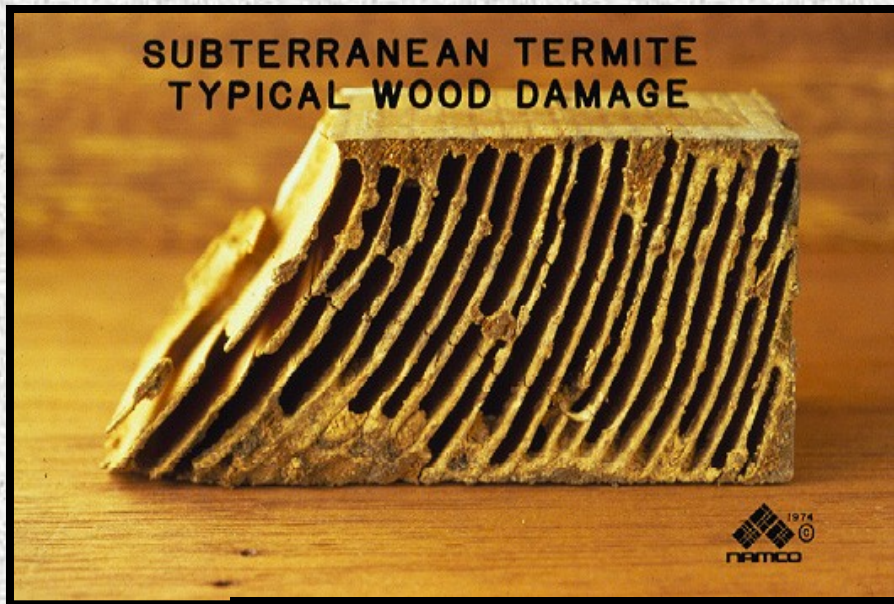
Food is regurgitated
and feed to nymphs

Proctodeal Feeding



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Termites feed on cellulose



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Types of Termites

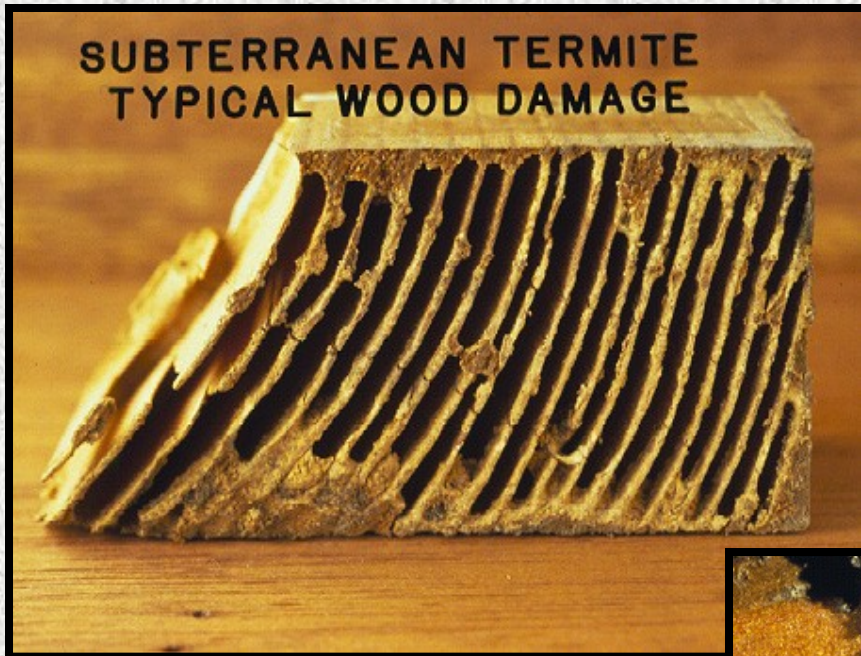
- Subterranean
 - Small
 - Require contact with soil (moisture)
 - White or cream in color
 - Common in and out of doors
 - More common in eastern WA
- Dampwood (Dry-)
 - Larger
 - Do not require soil contact
 - Dark in color
 - Common in western WA

Types of Termites



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Subterranean Termite

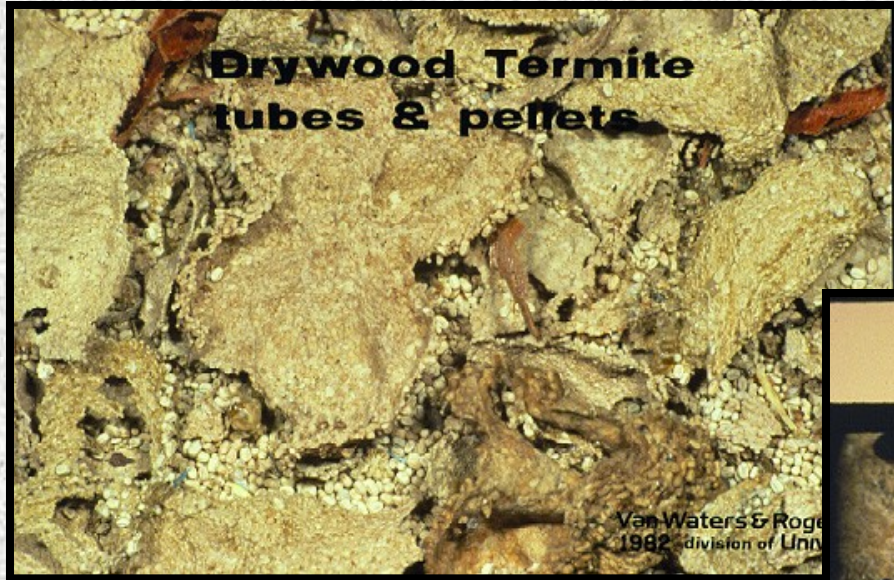


Follow grain

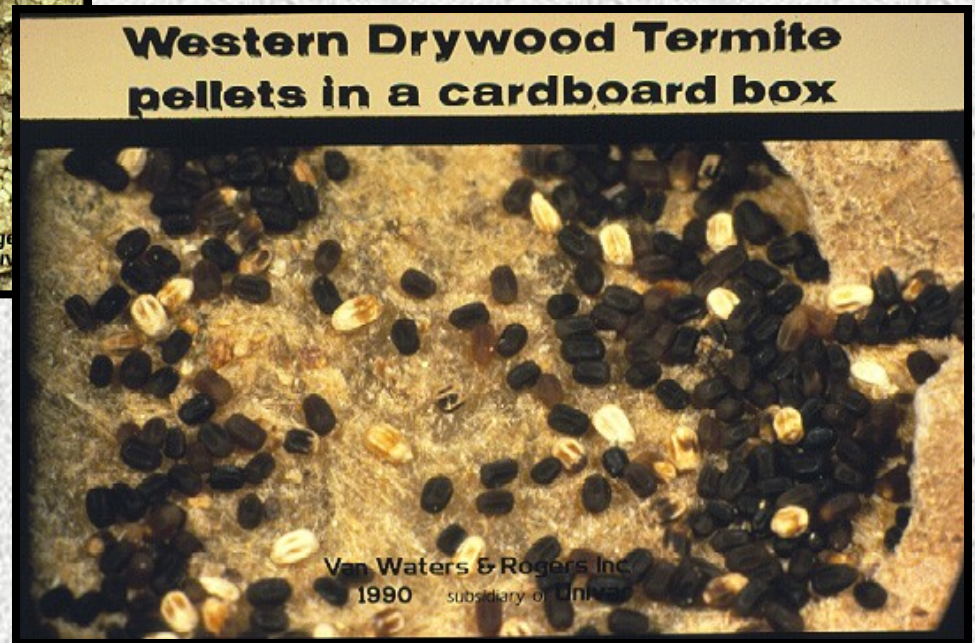
Construct soil
tunnels

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Dampwood Termite



No soil tunnels



Found
throughout
structures and in
furnishings

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How can one help prevent termite damage?

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Remove Natural Wood

TERMITES

PREVENTION: Subterranean

Remove all wood from building site



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Remove Wood Debris

TERMITES

PREVENTION: Subterranean

Remove all wood from building site

Clean up wood scraps and debris



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Avoid Wood/Soil Contact

TERMITES

PREVENTION: Subterranean

Remove all wood from building site

Clean up wood scraps and debris

Avoid wood contact with soil



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Use Treated Wood

TERMITES

PREVENTION: Subterranean

Remove all wood from building site

Clean up wood scraps and debris

Avoid wood contact with soil

Use treated lumber



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Allow for Ventilation

TERMITES

PREVENTION: Subterranean

Remove all wood from building site

Clean up wood scraps and debris

Avoid wood contact with soil

Use treated lumber

Ventilation openings



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Regular Inspections

TERMITES

PREVENTION: Subterranean

Remove all wood from building site

Clean up wood scraps and debris

Avoid wood contact with soil

Use treated lumber

Ventilation openings

Annual inspection & chemical treatment



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Combating Drywood Termite



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Carpenter Ants

- “Nest in wood - do not feed on it.
- Common worldwide
- More of a pest in temperate areas
- Social structure much like termites



Common in Wooded Areas

- Beneficial in nature - important decomposers
- Predators
- Soil contact not needed
- Always associated with wood



Ants are Holometabolous



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Ants Nest in Wood

- Nocturnal
- Main colony and satellites
- “Sawdust” often a sign



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Introducing Carpenter Ants

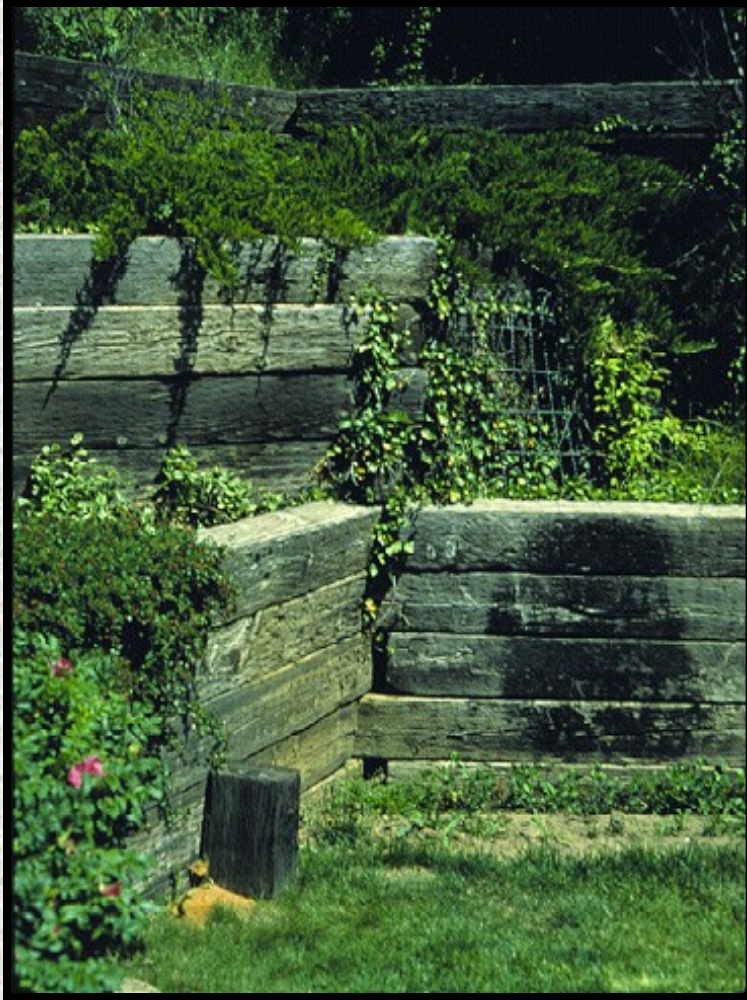


Firewood



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Carpenter Ant Colony



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Can be very difficult to locate
main colony



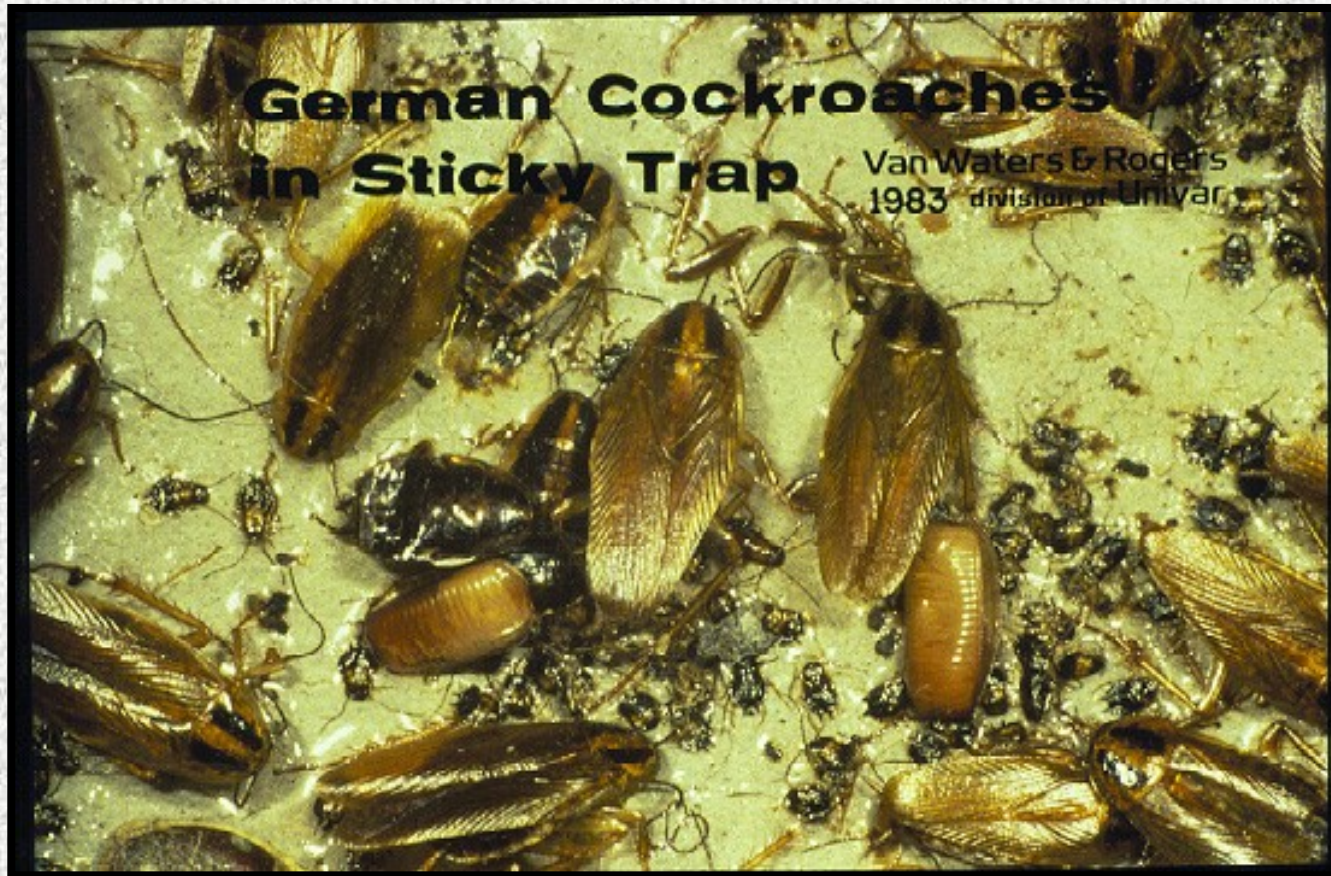
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Bryant Hall - WSU



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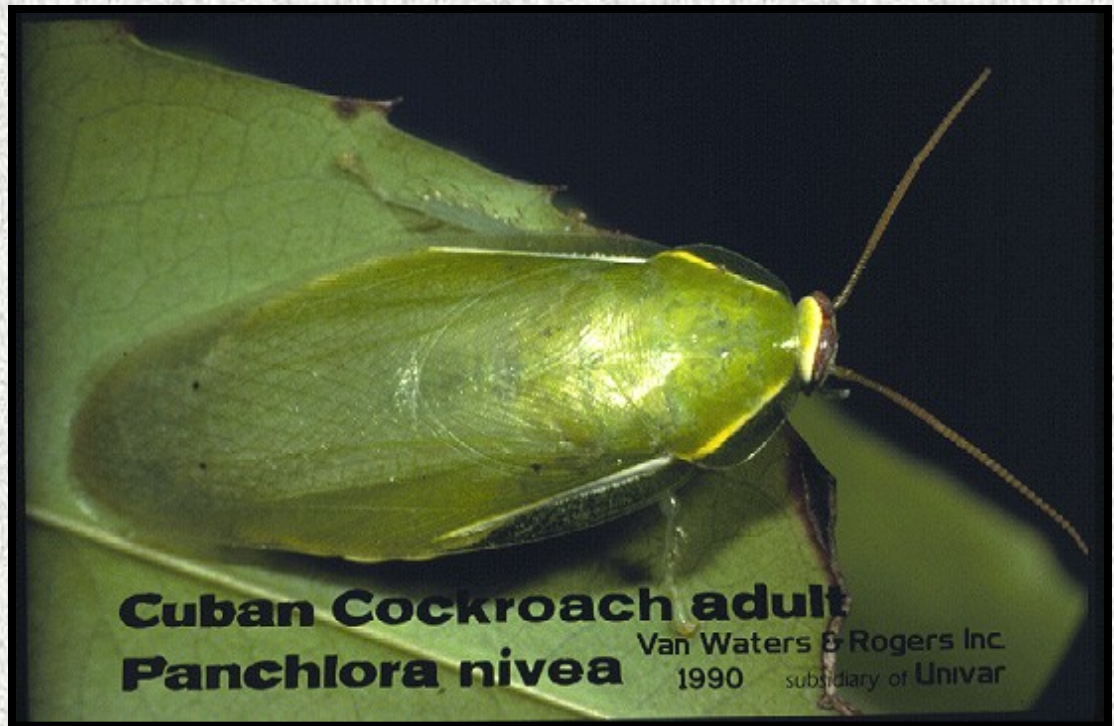
Household Pests - Cockroaches!



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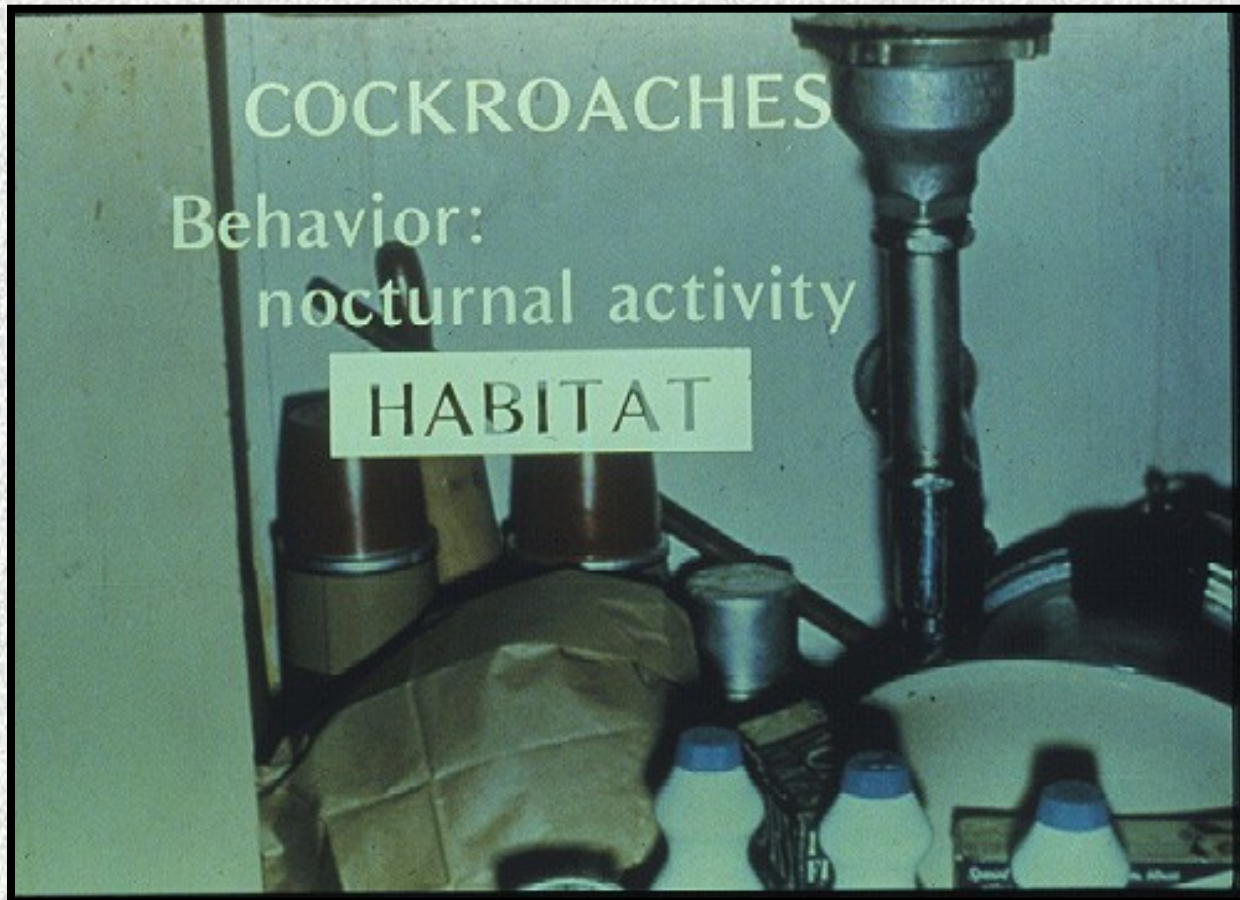
Are Roaches Misunderstood?

- Nocturnal
- Tropical - like hot and humid
- Important decomposers in nature
- Omnivorous
- Anthropogenic



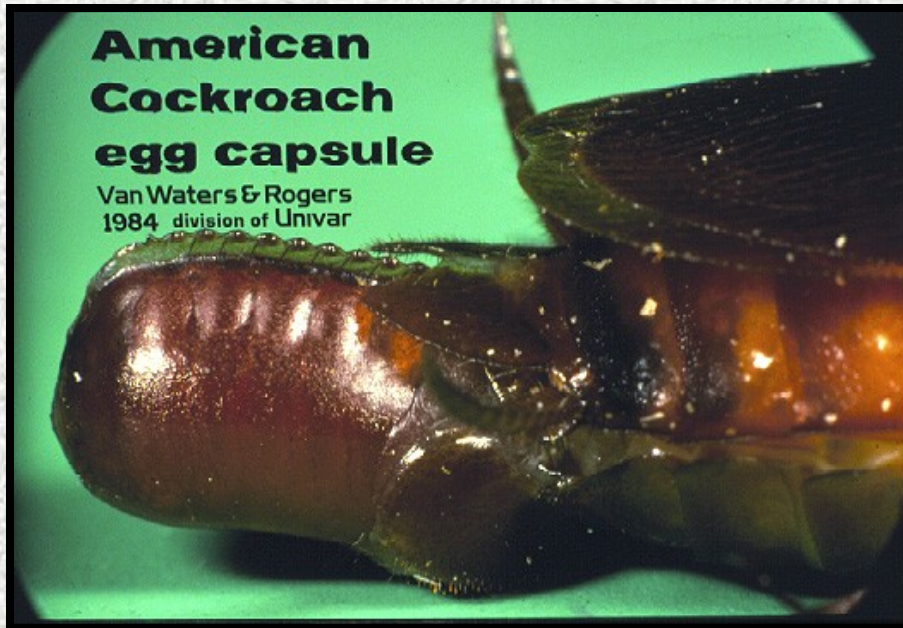
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Roaches like dark, warm, damp places



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Oötheca



Allows dispersal of
young

Different in
differing species



Cockroach Lifecycle



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German Cockroach

- Very active species
- Adults almost 1 inch in length
- Introduced in grocery bags, laundry, cardboard boxes, potato sacks
- “Water Bug”



Brown-banded Cockroach

- Almost 1 inch in length
- Frequent cracks and crevices
- Often in woodwork and furniture



American Cockroach

- Larger, adults 2 inches in length
- Long lifespan (up to one year)
- Common in damp basements and sewers
- Females produce 500-700 young



Cockroach Management

COCKROACHES

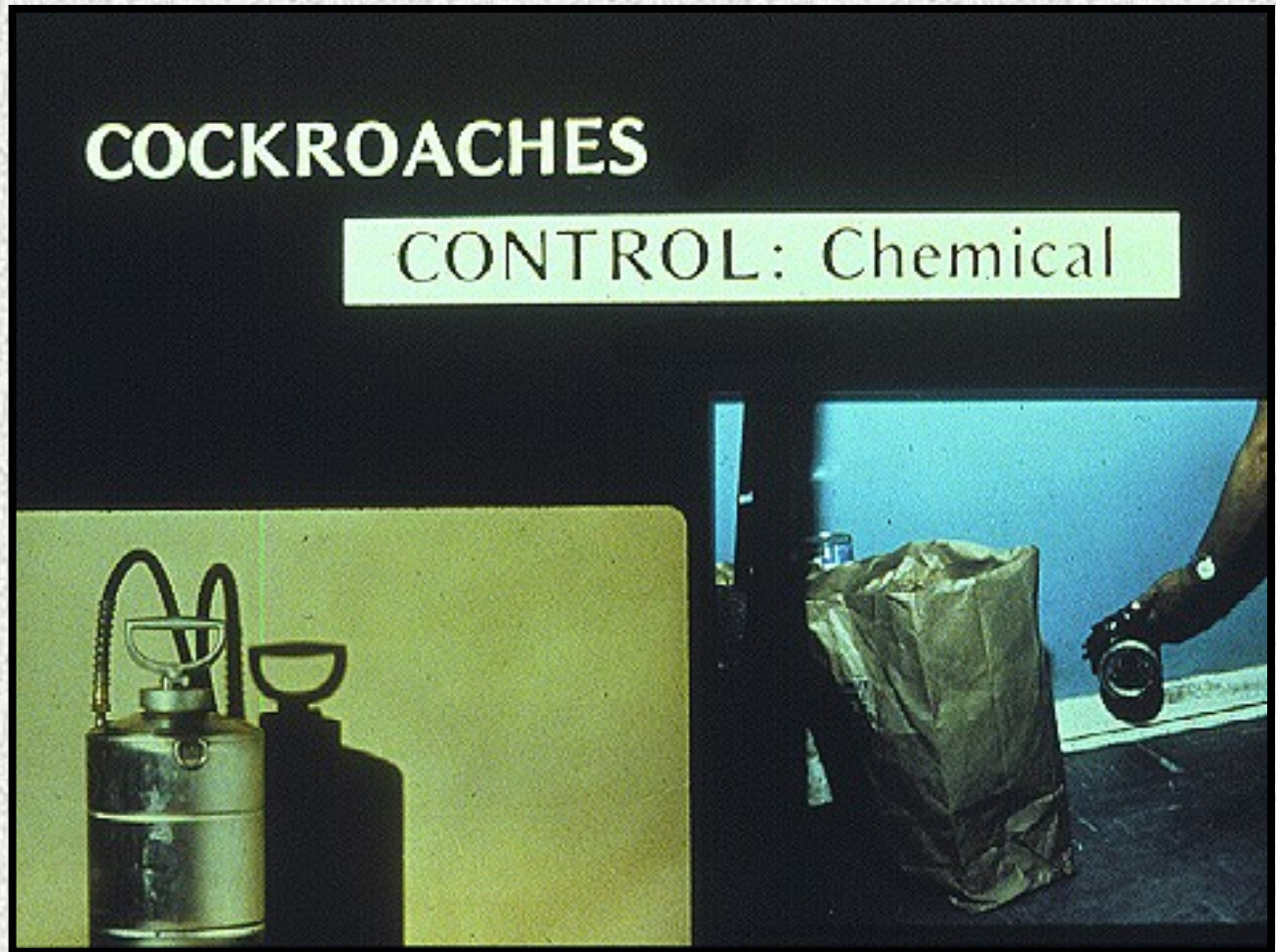


CONTROL: Sanitation

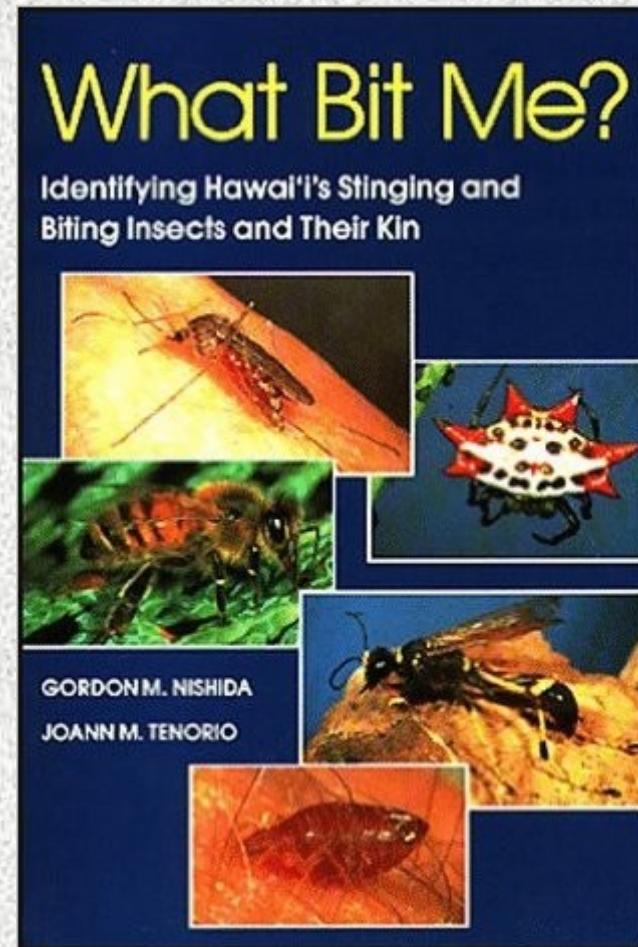
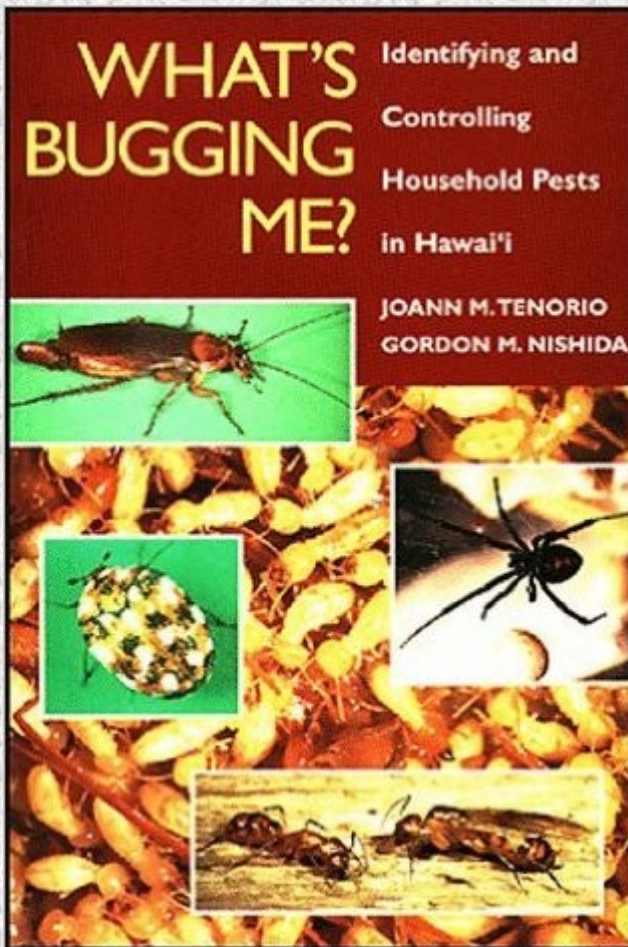
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Cockroach Management

Some
IGRs
being
used



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