Common Nuisance Invaders of Homes in Colorado

Whitney Cranshaw

Colorado State University

Nuisance Invader

- **The insect originates from outside the building**

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Nuisance Invader

- The insect originates from outside the building
- The insect does not feed on anything or do any significant harm to anything within the building
- The insect does not reproduce within the building
- **The problem is that it is a bug in a building, period**

Nuisance Invaders Issues Vary with the Season

Spring time brings:

- Wake up of overwintered insects in homes
- Ants foraging indoors until soils warm
- Clover mites
- Army cutworm migrations
- Millipede migrations
- Swallow bugs

The Big 3 Winter Time Residents of Colorado Homes

Arthropods found in homes in spring often result from seasonal migrations

Clover Mites

Clover mite activity – Late February through Late April

Clover mites often accidentally enter buildings during warm days in late winter and early spring

Clover mite activity is concentrated around buildings, trees, shrubs and other aboveground objects

CLOVER MITE POPULATIONS 1990

SITE 2

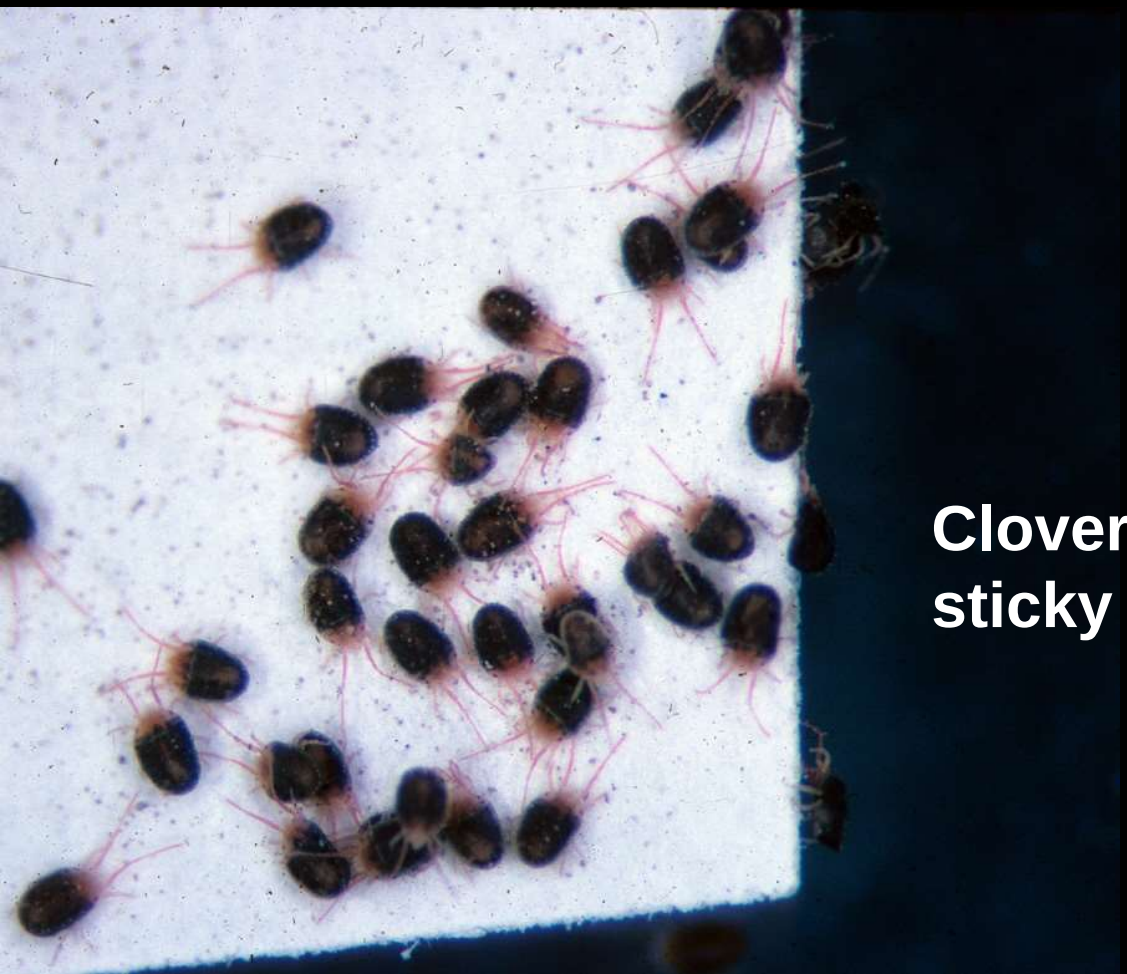
Buildings serve as surfaces on which they may molt and lay eggs. Entry into living areas in incidental.

Turf – Water = Mites in spring

Clover Mite Control Products?
(Post Organophosphate Period)

- Talstar
- Scimitar
- Extra Irrigation

Powdery materials (baby powder, corn starch, diatomaceous earth, etc.) can provide an impenetrable barrier to clover mites coming into homes around windows and other points of entry



Clover mites trapped on a sticky note

Field Ants

Formica spp.

Field ants – a.k.a. “thatcher ants”

Nests may be in the form of small mounds incorporating small twigs and other plant matter

Field ants collecting aphid honeydew

Field ants collecting sugary secretion from peony buds

Harbingers of Spring

Robin (left); Field ants temporarily forage in homes (below)

April showers bring

.... millipede migrations

Millipedes dry out and die within a few days after entering homes

Millipede Migrations

- **Originate in lawn, mulched beds**
  - ***Feed on decomposing plant matter***
- **Persisting period of wet weather in spring or fall triggers migrations**
  - ***Survival indoors usually only a day***

Swallow Bug

Oeciacus vicarius

A seasonal insect in buildings – *but this one can bite*

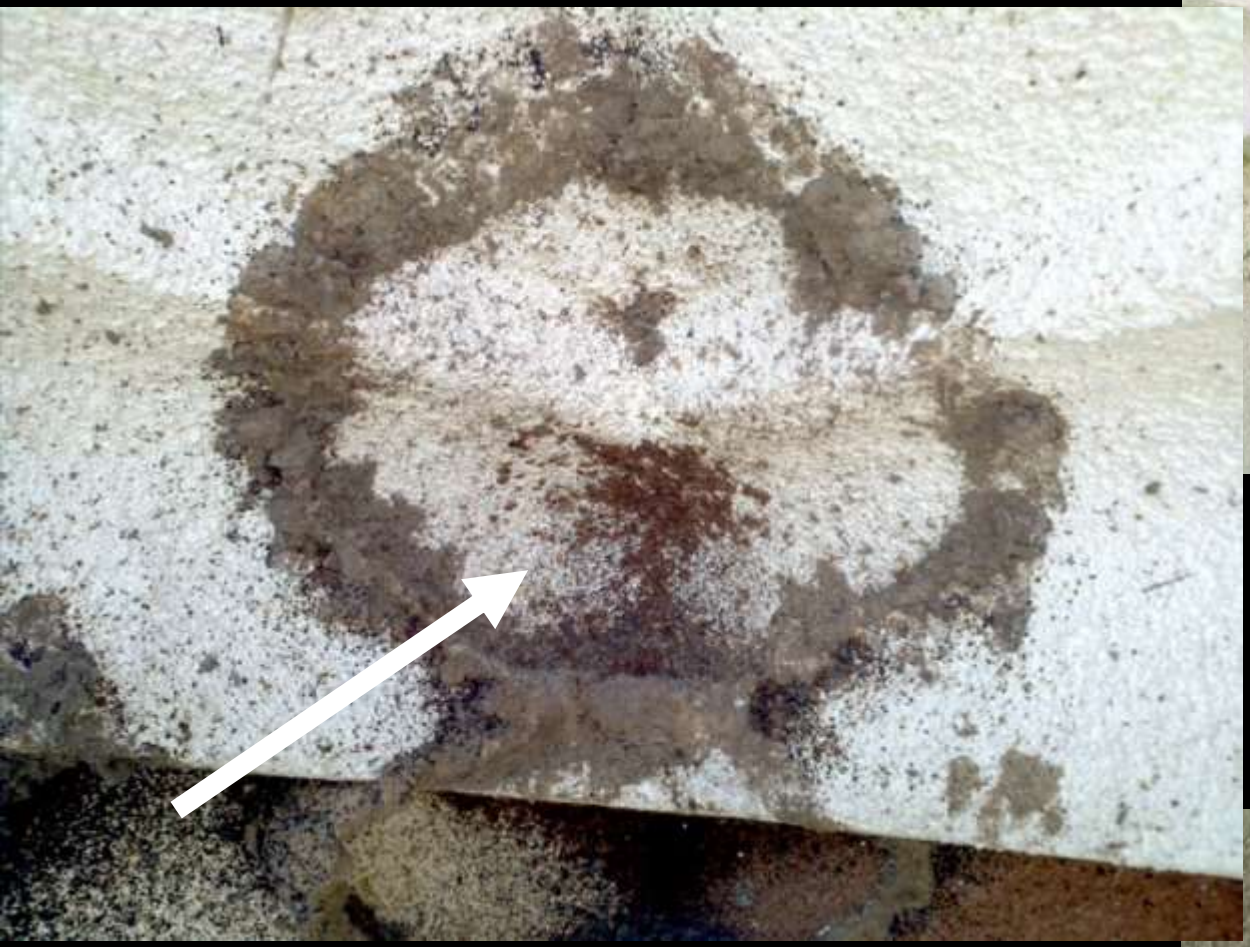
Swallow Bug

Associated with the nests of cliff swallows

Swallow bugs exposed after nest removed

Swallow Bugs

- Associated with swallow nests
- Enter buildings after birds leave
- Bites of humans common and painful. Most biting occurs in late winter, early spring



Swallow bugs clustered behind abandoned swallow nest

Summer Time Brings…..

- Duff millipedes
- Springtails
- Sunspiders
- False chinch bugs
- Root weevils
- Wasps

Summer Time Brings…..

- Duff millipedes
- Springtails
- Sunspiders
- False chinch bugs
- Root weevils
- Wasps

…..and now elm seed bugs!

New State Record (2017)

Elm Seed Bug

Arcocatus melanocephalus

A significant new nuisance invader of homes in summer

Adult

Nymph

Photo by Ryan Davis

Photo by Ryan Davis, Utah State University

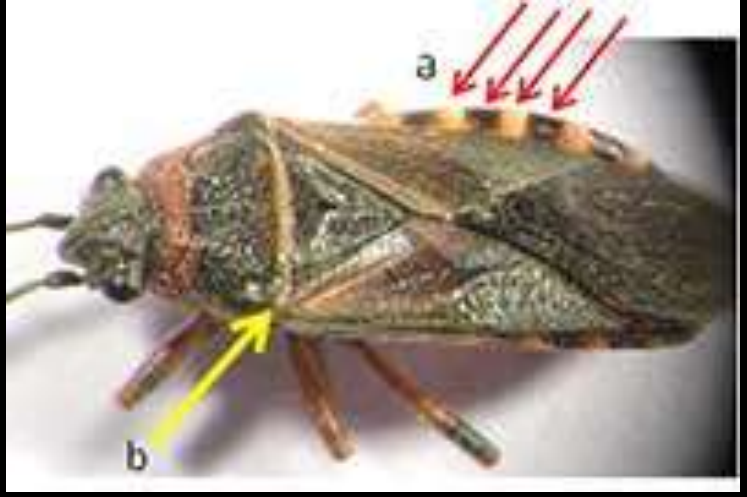
Fecal spotting

Develops on seeds of elm

No harm to trees

Moves into buildings in summer, early autumn

Nuisance issues, some associated odor



There is a new Extension Fact Sheet on this insect

COLORADO STATE UNIVERSITY
EXTENSION

Elm Seed Bug: A New Nuisance Pest in Colorado Homes

Fact Sheet No.5.619 | Insect Series | Home & Garden

M.Shrader

The elm seed bug (*Arocatus melanocephalus*) is a pest native to Europe and the Mediterranean region and was first detected in 2012 in Idaho. Since then it has been detected in Utah, Oregon, Washington, British Columbia, and, most recently, in Colorado. The first detections of this insect were made in July 2017, and it is presently known in Mesa, Delta and Montrose counties. With the widespread presence of its host plant, Siberian elm, this insect will likely spread through much of Colorado.

ber and may become active in homes during the winter if temperatures are favorable outside. Adults will overwinter in structures, but do not reproduce in the home. When spring arrives they will venture out from overwintering sites to feed on developing elm seeds. The elm seed bugs are a further nuisance because they can produce a pungent odor similar to bitter almonds from abdominal scent glands.

The adult bugs are the stage normally present in a home. These are about 1/3

Quick Facts

- The elm seed bug is an insect that has newly arrived in Colorado that feeds on the seeds of Siberian elm.
- Elm seed bug cause nuisance problems by moving into buildings in summer and early autumn. They do not reproduce indoors.
- The best management of elm seed bugs is to seal cracks

April showers bring – millipede migrations

Summer heat brings…
duff millipedes

Duff millipede

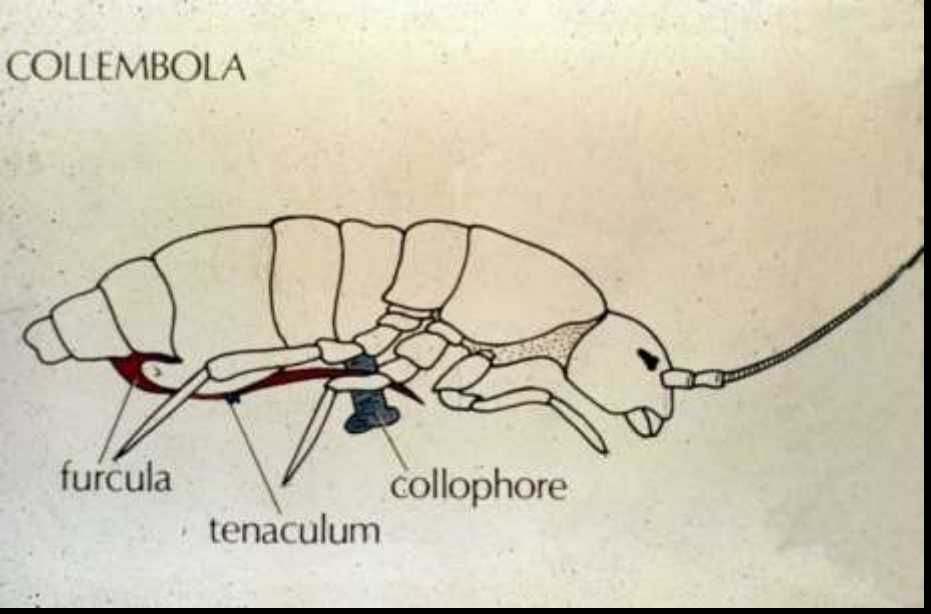
Duff millipedes are often mistaken for dermestid (carpet) beetle larvae

Dermestid beetle larva and adult

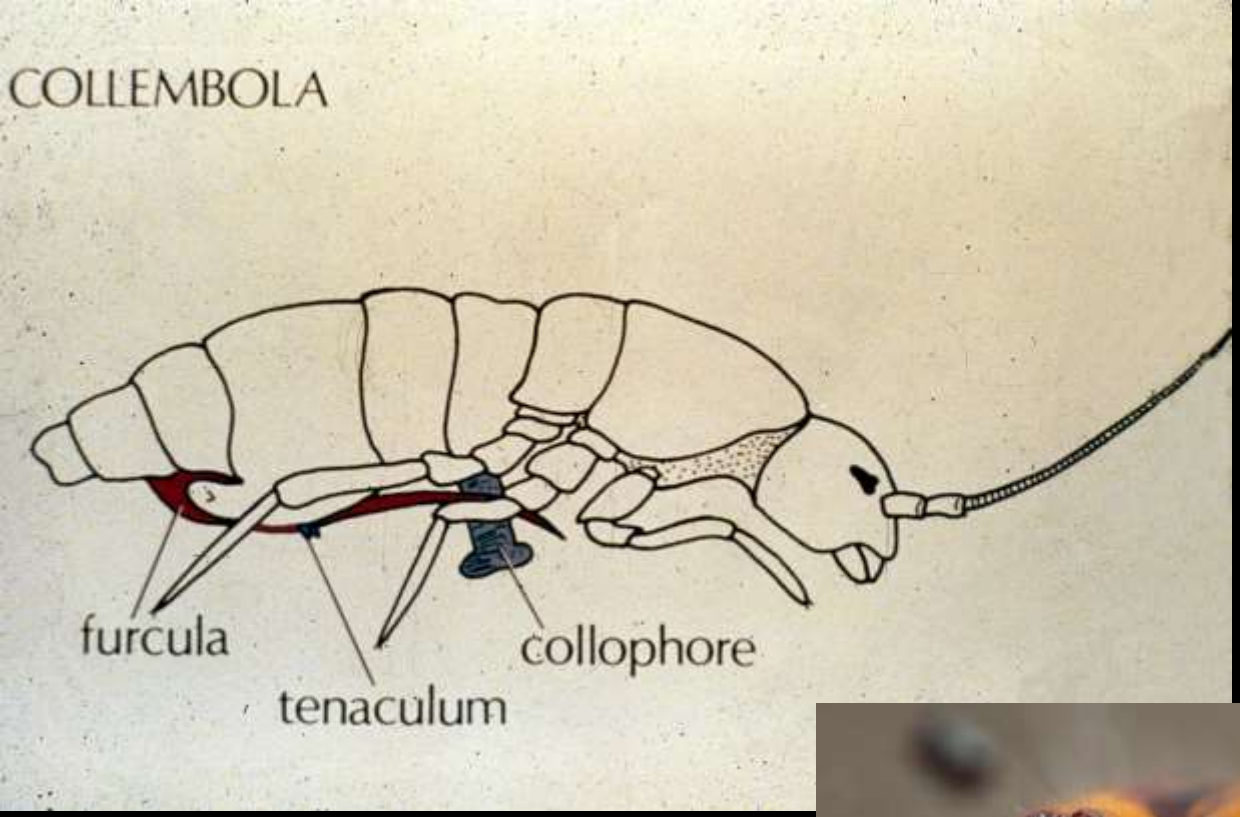
Duff Millipede Problems in Homes

- Are most frequent in foothills areas and associated pine forest
- Tend to intensify during hot, dry periods in summer

Springtails



Extremely common "bugs" in soil - that may wander into buildings



Most springtails can jump using the “furcula”

Springtails and Nuisance Household Invasions

Associated with hot, dry weather that follows an extended wet period

Root Weevils (*Otiorhynchus* spp.)

Larvae of root weevils feed on roots

Adults root weevils produce leaf notching wounds

Three species of root weevils commonly enter buildings in summer and early autumn

Strawberry root weevil is the most common species reported in homes

Peak periods of building invasion often occurs during periods of high temperatures in summer

Trachyphloeus asperatus

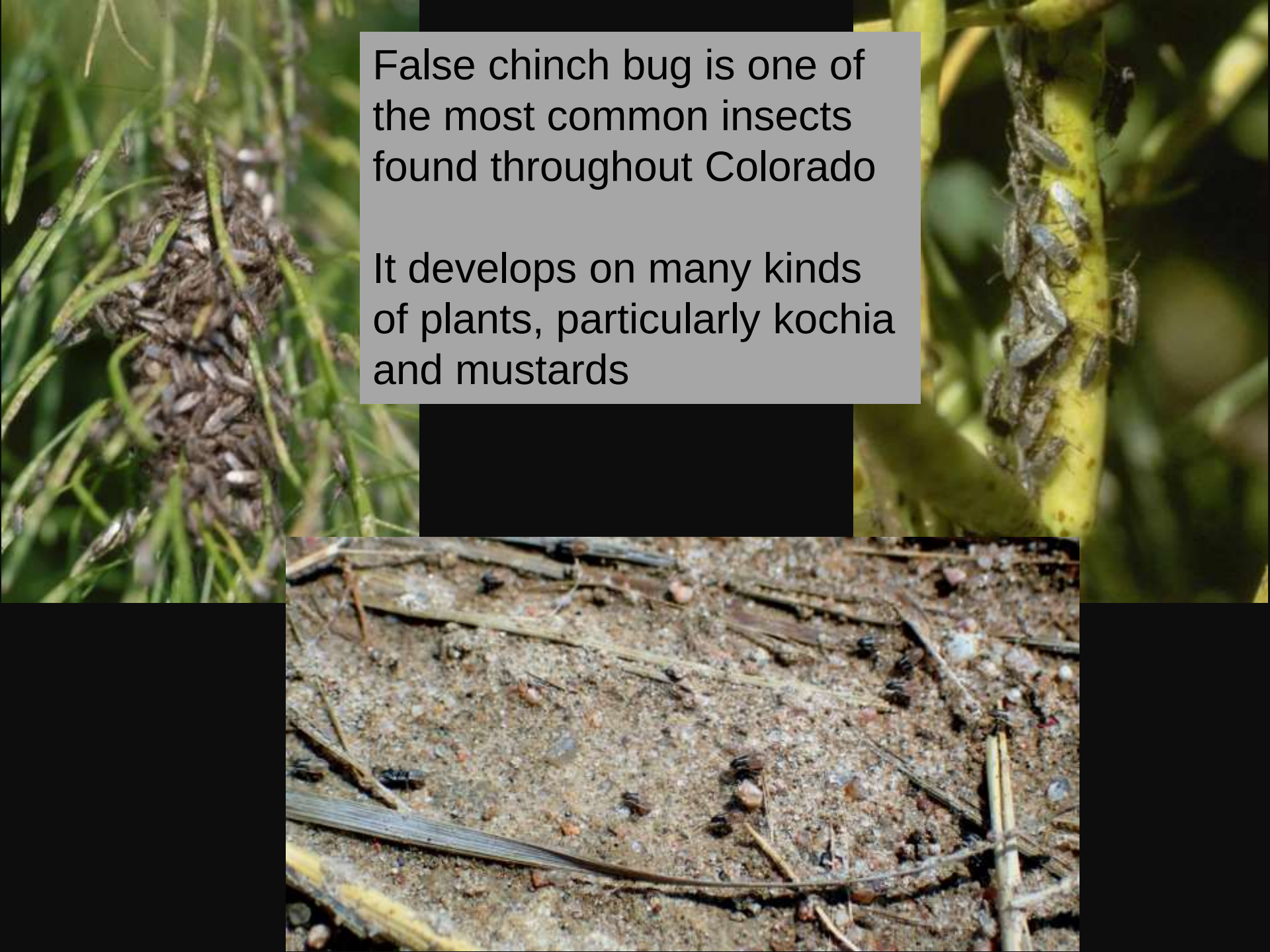
Barypeithes pellucidus

Two other, small species of root weevils have recently been reported coming into homes

Several seed-feeding bugs incidentally enter buildings

False chinch bug

Nysius raphanus



False chinch bug is one of the most common insects found throughout Colorado

It develops on many kinds of plants, particularly kochia and mustards

In 2018 some areas saw huge populations and mass migrations of this insect

Peak indoor migrations coincide with periods when host plants dry down/mature. But false chinch bug complaints were received from June through September

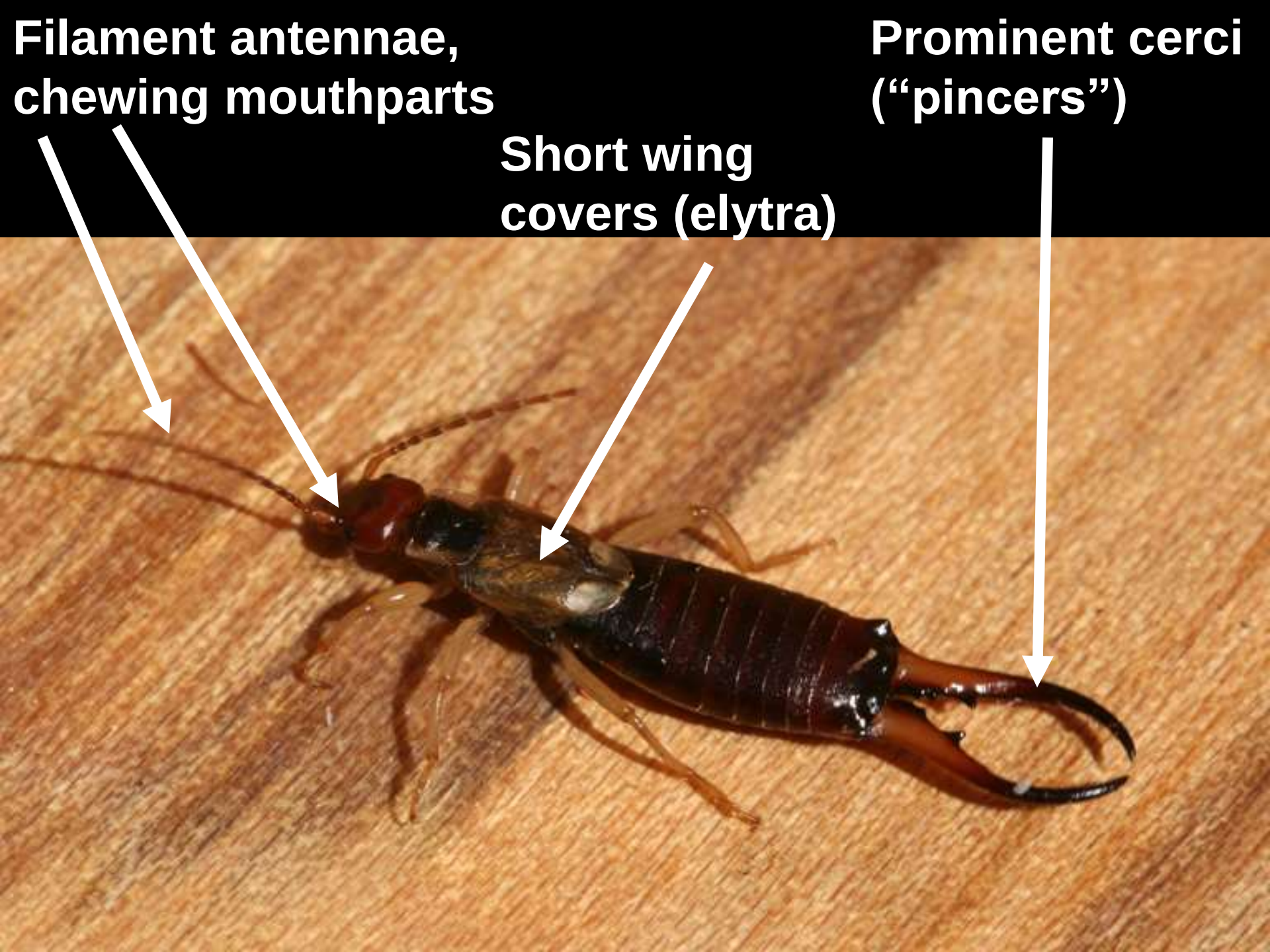
Another seed feeding bug being reported coming into homes in Fort Collins:

“Ozophora”

(An unknown species in the genus *Ozophora*)

European earwig

Colorado’s only earwig species


Filament antennae,
chewing mouthparts
Short wing
covers (elytra)
Prominent cerci
("pincers")

European earwig displaying wings

The cerci (aka ‘forceps’), are fairly weakly muscled. They are used during mating (by males) and can help to manipulate prey.

European earwig - male

European earwig - female

The first mass of eggs is laid in late winter. Eggs are laid in small cavities in mulch, under rocks or other protected places.


34

Earwigs are *omnivores*

Small soft-bodied insects and insect eggs make up an important part of their diet.

Earwigs feed at night

Flower petals and soft plant parts are also eaten by earwigs.

Earwigs feed at night.

Thigmotaxis – “a predilection for pressure”

Earwigs – Increasing as garden problems?

Possible reasons for increased incidence of earwigs

- Weather-related issues
- Increased use of mulches that provide favorable habitat

Mulches and Nuisance Invaders

- European earwig
- Springtails
- Millipedes
- Sowbugs/Pillbugs
- Field crickets
- Some spiders

Sowbugs and Pillbugs

Sowbug

Pillbug – also known as the ‘roly-poly’

Associated with moist areas and decaying vegetation

The Wood Louse Hunter/ Roly-Poly Killer

Family Dysderidae

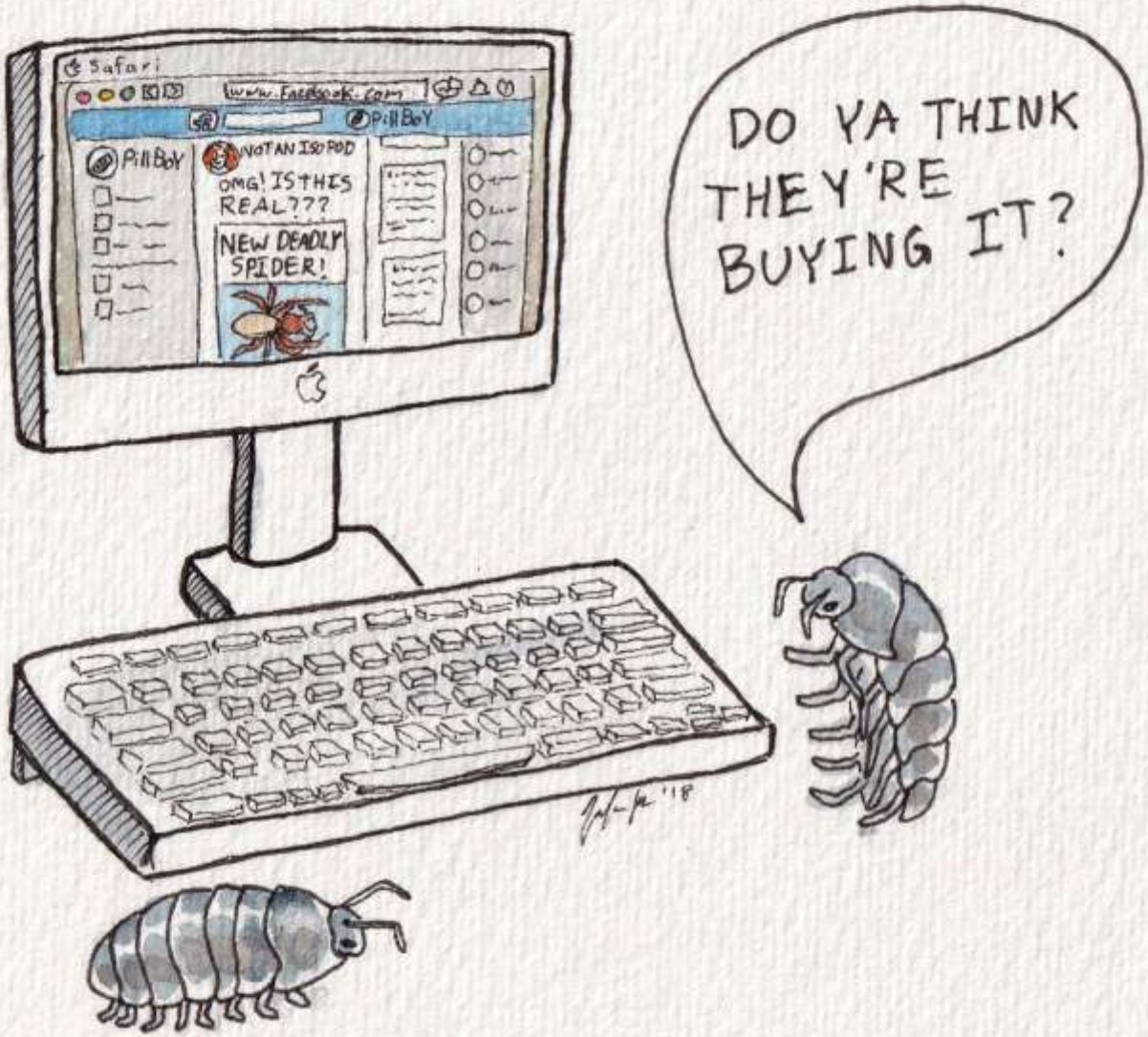
~Dysdera crocata

NEW DEADLY SPIDER SPREADS ACROSS USA

August 21

THE SPIDER FROM HELL .FIVE PEOPLE HAVE DIED THIS WEEK DUE TO THE BITE OF THIS DEADLY SPIDER .THIS SPIDER WAS FIRST SEEN IN SOUTH CAROLINA IN JULY SINCE THEN IT HAS CAUSED DEATHS IN WEST VIRGINIA ,TENNESSEE AND MISSISSIPPI. ONE BITE FROM THIS SPIDER IS DEADLY. US GOVERNMENT WORKING ON A ANTI VENOM AT THIS TIME PLEASE MAKE YOUR FAMILY AND FRIENDS AWARE


University of Nebraska
Department of Entomology


Safari
www.facebook.com
PillBoy
PillBoy
NOT AN ISOPOD
OMG! IS THIS REAL???
NEW DEADLY SPIDER!
DO YA THINK THEY'RE BUYING IT?

@jennrosefx

Sunspider (aka Windscorpion, Solpugid)

Colorado State University
EXTENSION

Windscorpions (Sunspiders) of Colorado

Fact Sheet No. 5.589

Insect Series | Home and Garden

by W.S. Cranshaw[1], Paula Cushing[2], and Jack Brookhart[2]

Windscorpions are animals of bizarre appearance that can be found in most of the drier areas of Colorado below 7500 feet. These are a type of arachnid, categorized in the order Solifugae, and are distant relatives of "true" scorpions (order Scorpiones) and spiders (order Araneae). Other common names given to windscorpions include "sunspiders," "solpugids," "solifuges," and, "camel spiders." Presently 15 species are known to occur in Colorado (Table 1).

Figure 1: A windscorpion, also known as a "sunspider" or "solpugid"

Quick Facts

- Windscorpions are a type of arachnid native to many of the drier areas of Colorado below 7500 feet. Fifteen species are known to be present in the state.
- Other common names for windscorpions include "sunspiders", "solifuges",

Summer Lighting and Some Indoor Pest Events

Indoor migrations usually occur in midsummer. Outdoor lighting, attractive to prey, is associated with incidental indoor movements.

Some Ground Beetles are attracted to Summertime lights

What is a “stink bug”?

What is a “stink bug”?

“Skunk”/ “Stink”/ “Circus” beetles

Eleodes species

Left: “True” Stink Bug

Below: NOT A Stink Bug

A Stinky Beetle

Right: Darkling Beetle (aka ‘stink beetle’, ‘circus beetle’)

Stink Bugs

Hemiptera: Pentatomidae

Chlorochroa species of stink bugs are commonly seen massing on buildings in summer

***Chlorochroa sayi* – Say stink bug**

***Chlorochroa ligata* – "conchuela"**

Chlorochroa ligata – The conchuela stink bug

Rough stink bugs are native insects sometimes found within homes

Brown Marmorated Stink Bug

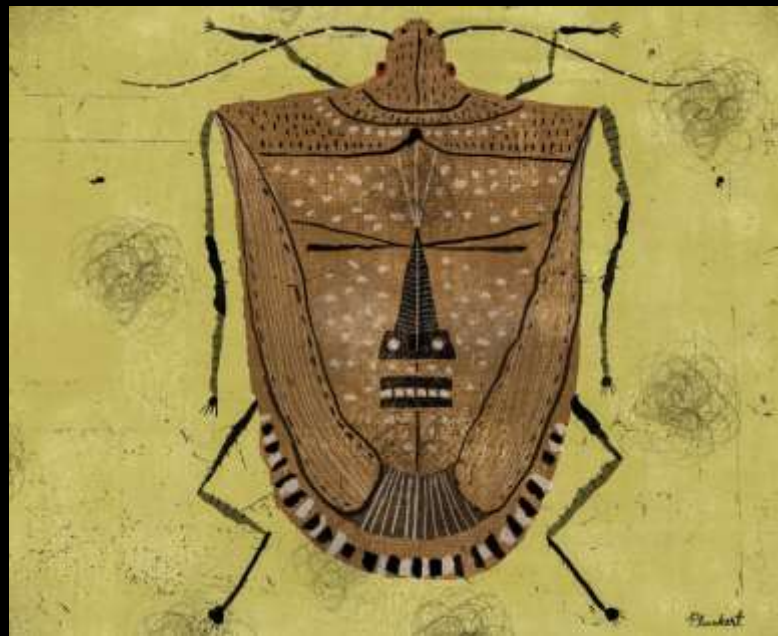
Brown marmorated stink bug is a common invader of buildings in fall in parts of the US. Upper stories on sun exposed sides are primary concentrations

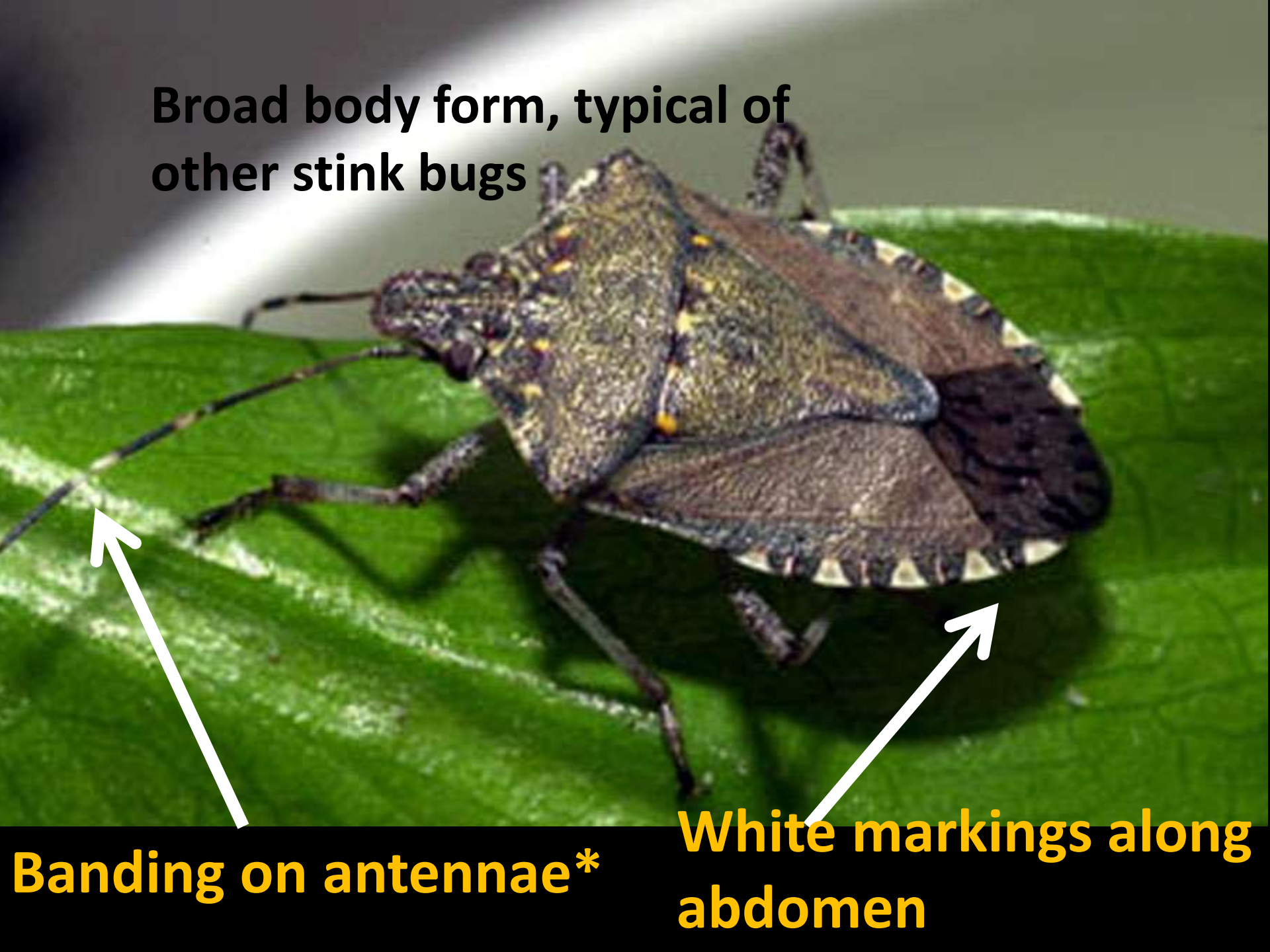
ANNALS OF ECOLOGY MARCH 12, 2018 ISSUE

WHEN TWENTY-SIX THOUSAND STINKBUGS INVADE YOUR HOME

These uniquely versatile bugs are decimating crops and infiltrating houses all across the country. Will we ever be able to get rid of them?

By Kathryn Schulz




Broad body form, typical of other stink bugs
Banding on antennae*
White markings along abdomen

Stink bug

Western conifer-seed bug is a "stinky bug" that can be a common nuisance invader

Late Summer/Early Fall Migrations

- Western conifer-seed bugs
- Boxelder bugs
- Elm leaf beetles
- Funnel weaver spiders
- Cluster flies

Some winter residents of Colorado homes

Boxelder Bug

Boxelder bugs are associated with boxelder and bigtoothed maples

Boxelder bugs move to winter shelter. Warmed, rough surfaces are common points of mass aggregation in late summer/early fall.

SAN JUAN MOUNTAINS

Insects crash computers

OURAY — Bugs brought down Ouray County's computer system over the Thanksgiving holidays, but the bugs weren't of the computer-glitch variety. They were bona fide insects.

The bugs — the black-and-orange, antenna-waving box elder variety — were found inside a new computer server by computer technicians. The technicians were called in by county workers who returned from Thanksgiving vacation to find their computers inoperable. The county's next call for help went to an exterminator.

The bugs, which were apparently attracted by the server's heat, knocked out computers in the treasurer's, clerk and assessor's office and held up payroll checks for county employees.

Colorado's Y2K Bug?

Western conifer seed bug, *Leptoglossus occidentalis*

Blood-sucking Conenose, *Triatoma* spp.

Leptoglossus clypealis
Western leaffooted bug

May mass on homes in summer

Nuisance invader in autumn

Leptoglossus occidentalis
Western conifer-seed bug

Leptoglossus clypealis

A close relative of the western conifer-seed bug that sometimes clusters on buildings

Photograph taken by Richard Nobman in Dolores County

Bat Bugs

(*Cimex pillosellus, Cimex adjunctus*)

Bat Bugs

Associated with nesting bats

Bat Bugs

- Associated with bats
- Incidentally enter living areas when bats vacate (late summer, early autumn)
- Human biting rare

Bat bugs – Hairs on the prothorax are long; longer than the width of the eye


Eye
Eye
Hair longer than width of eye
BAT BUG
Hair Shorter than width of eye
BED BUG
BadBedBugs.com

Most Common Spiders in Homes

Funnel weaver Spiders
(Grass spiders)

Family Agelenidae, three common genera

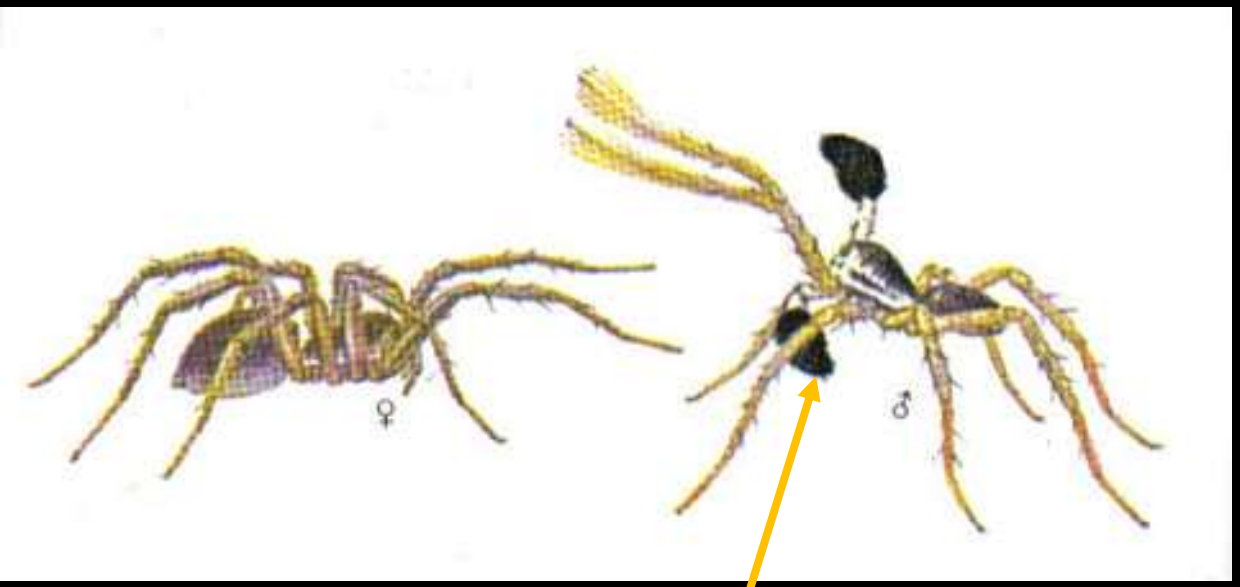
Funnel-weaver Spiders

Family Agelenidae

Funnel weaver webs

Male funnel weaver spiders have grossly enlarged pedipalps (*not fangs!!*)

Spider Mating – Transfer of Sperm Via Pedipalps



Pedipalps

Most funnel weavers found in homes are incidental transients, wandering indoors in late summer/early fall

Agelenopsis species

Hololena species

Some funnel weaver spiders can reproduce indoors

Tegenaria domestica

Barn funnel weaver/domestic house spider

Tegenaria agrestis

Hobo spider

Jumping Spiders

Family Salticidae

Jumping spiders have the best visual acuity of any terrestrial arthropod

Common jumping spiders found within homes

Platycryptus spp.

Zebra jumper

Bold jumper

Multicolored Asian lady beetle

(Harmonia axyridis)

Household invasions – Multicolored Asian lady beetle

Common in many areas of the US. Low incidence in Colorado

Green lacewings as a nuisance invader in fall.

Primarily occurs in forested areas. The species involved usually is *Chrysoperla nigricornis*

Winter Time Flies in Homes

Cluster flies, picture-winged flies and others

***Ceroxys latiusculus*, a picture-wing fly that commonly enters buildings in Fall**

Cluster Flies

***Pollenia* species**

Cluster flies are characterized by having golden, curled hairs on the thorax

Scenario for Cluster Fly Invasion of a Building

- Flies move to sunlit vertical surfaces when seeking winter shelter
- Flies move upward as sun sets
- Flies enter upper areas of building
- Flies often cluster together behind walls during cool season

Cluster Flies

A Colorado mystery

“The” cluster fly, *Pollenia rudis*, is a parasitoid of certain earthworms

What are the hosts of the other cluster flies that are common in homes in Colorado? (*Pollenia pediculata, P. angustigena*)

Questions involved with Colorado Cluster Flies

- No earthworms are native to Colorado, although many have been introduced
- Cluster flies problems are most severe at higher elevation counties
- What kinds of “cluster flies” occur here and what do they do?

Pollenia pediculata

Four species of cluster flies have been recovered from Colorado buildings. *Pollenia pediculata* is most abundant

There is a new fact sheet on this subject

COLORADO STATE UNIVERSITY
EXTENSION

Cluster Flies and other "Winter Flies"

Fact Sheet No. **No. 5.618** Insect Series | **Home & Garden**

W. Cranshaw[1]

During the cool months some insects have the habit of moving into buildings as a temporary winter shelter. Common examples of such cool season "nuisance invaders" are boxelder bugs, western conifer-seed bug, and elm leaf beetles. Cluster flies (Pollenia species) are the most common of the flies that often use buildings as a temporary shelter through winter.

Cluster flies tend to be particularly common in higher elevation communities, but

There are some other kinds of flies that will be found indoors and these are reviewed in Fact Sheet 5.502 Flies in the Home. Among these are some other "winter flies" that use homes for winter shelter, particularly the "blue bottle flies" (*Calliphora* species) and the black blow fly (*Phormia regina*). The habits of these differ in some important ways from those of cluster flies and are discussed below.

Quick Facts

- Cluster flies frequently use buildings for winter shelter and can be the most common fly found indoors during the cool season.
- Cluster flies develop by feeding on earthworms.
- Cluster flies found in buildings are in a dormant state and

General Principles for Managing Nuisance Household Invaders

Seal openings of home prior to time when insects enter the building

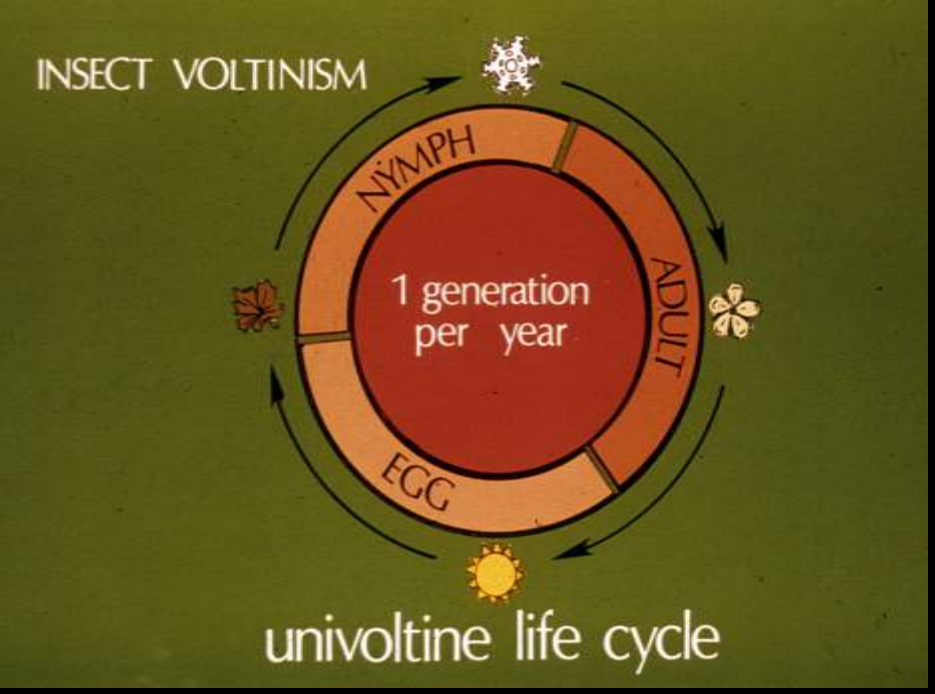
- Barrier insecticide applications can supplement
- Dusts are sometimes blown behind walls

Treat/remove host plants

Dispatch individual insects as they are observed

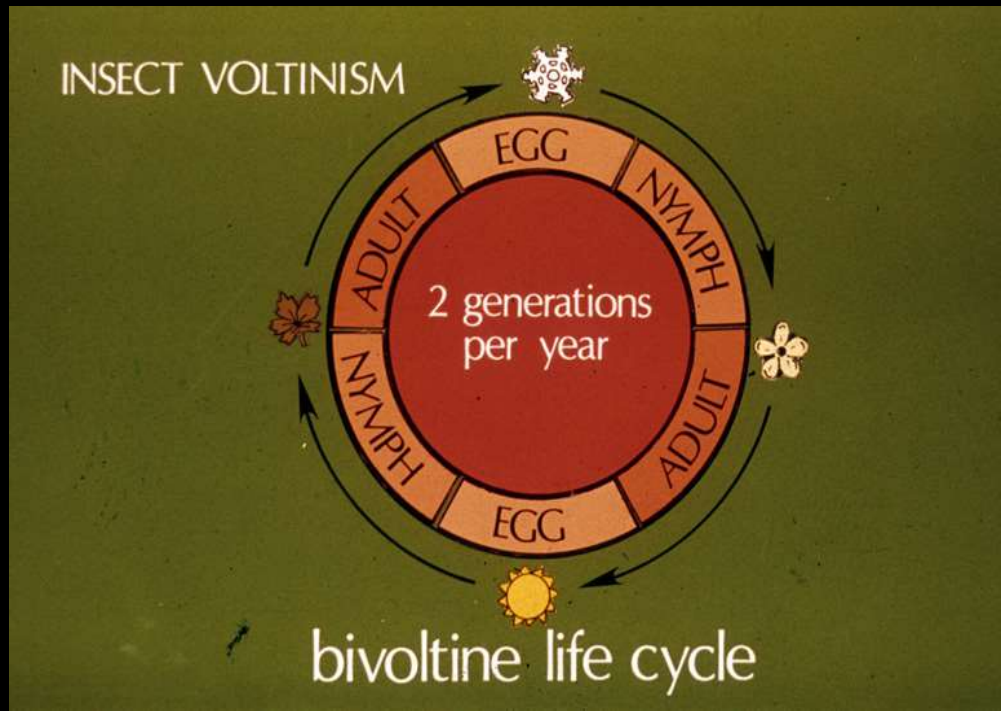
Keep in Mind:
These insects are not reproducing in the home

Ultimately they will move back outdoors or die



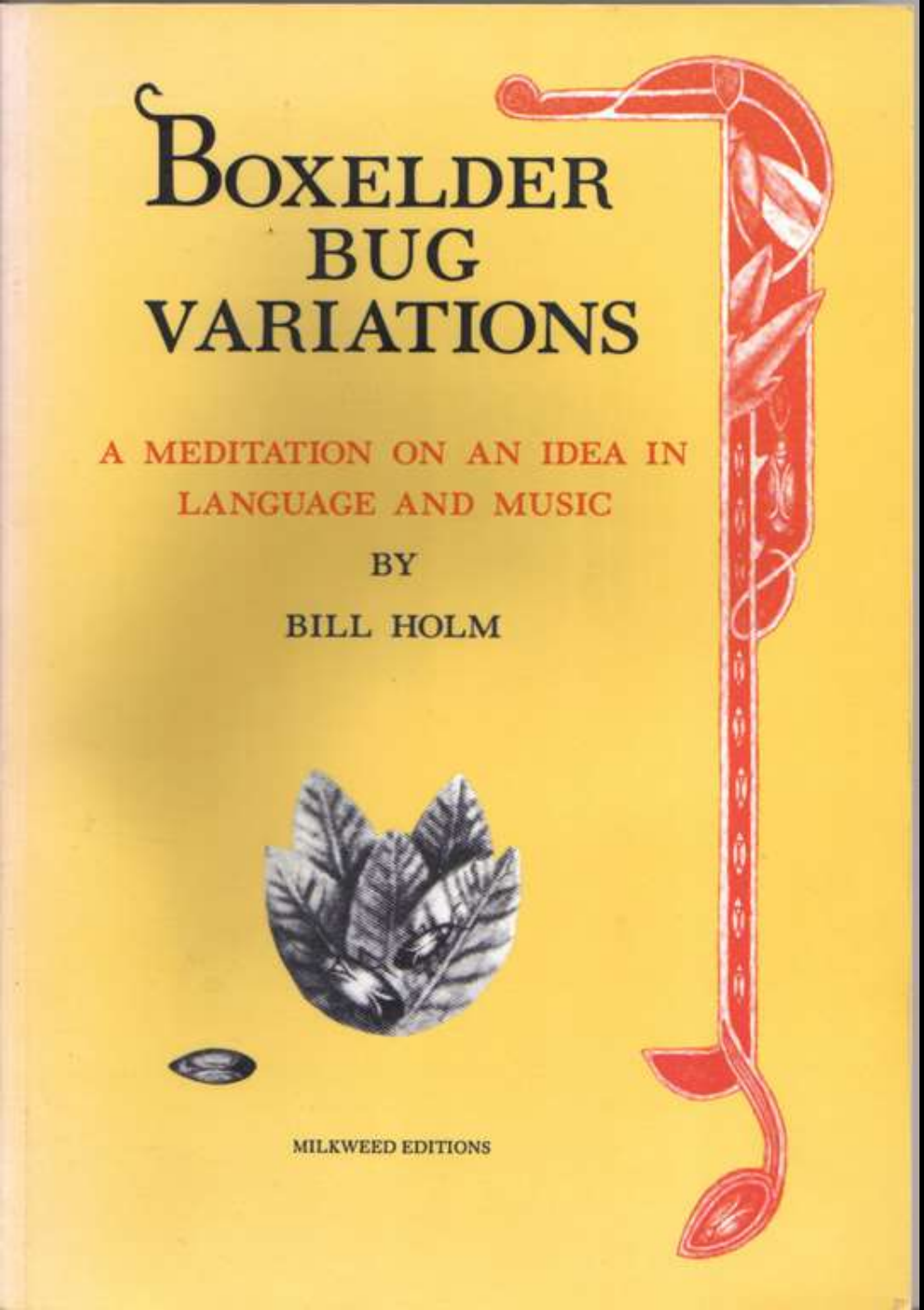
Insects that use homes for overwintering shelter are in *diapause*.

They do not feed nor reproduce while in diapause.



…and remember -
These kinds of problems
happen to the nicest of people

Its Not Your Fault!



Let us always keep "nuisance invaders" in proper perspective

A Poem on the Subject:

The Boxelder Bug Prays

I want so little,
For so little time,
A south window,
A wall to climb,
A radio knob,
Nothing to eat,
Nothing to rob,
Not love, not power,
Not even a penny,
Forgive me only for
being so many.

- Bill Holm

This presentation will be posted at the Insect Information Website

- Housed at Department of Bioagricultural Sciences and Pest Management
  - Search BSPM CSU
- Within Extension and Outreach
  - Insect Information
    - Extension presentations for 2018 posted at bottom of page

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Insect Information

All materials needed in another accessible format can be made available upon request.

Arthropods of Colorado Fact Sheets

This is a listing of about 200 downloadable fact sheets related to insects and other "bugs" found in in Colorado. It contains fact sheets that are written for the Colorado Arthropods of Interest series and the Extension fact sheets that are related to insects.

Fact Sheets

Click here for over 200 Fact Sheets

- Colorado Hemp Insect Website
- Western Colorado Entomology Website
- IPM Images/Bugwood (Cranshaw)
- IPM Images/Bugwood (Peairs)
- Entomology Resources List
- Honey Bee Swarm Hotlines

Miscellaneous Insect Information

Arthropods of Colorado

Information on many arthropods of importance or interest in Colorado has been developed by the Colorado State Extension Entomology program. Many of these are treated in Extension Fact Sheets that can be accessed at the CSU Extension Insect Publications. Those listed below are indicated by their publication number. The currently available sheets are listed below, organized by taxa. Additional sheets will be developed in the future.

- Fact sheets on exotic insects, not currently found in Colorado, are listed preceded by +
- The remaining publications are a new series, *Colorado Arthropods of Interest*, and are indicated by –

Arachnida (Arachnids)

Araneae (Spiders)

5.512 Spiders in the Home

– Catfaced Spider

– Whitebacked Garden Spider

5.605 Western Widow

– Dysdera crocata ("Roly Poly Hunter")

– Funnel Weaver Spiders

Hemiptera continued...

– Ambush Bug

– Masked Hunter

– Wheel Bug

– Zelus Luridus

– Water Striders

5.608 Leafhoppers on Lawns

Hemp Insect Website

Master Gardener Information

This includes the handouts and PowerPoint presentations (as PDF) used in Master Gardener Entomology training. These will get updated annually at the end of the winter/spring training programs.

Handouts

PowerPoint Presentations Used in 2018

Recent Extension Presentations

This is a listing that provides the PowerPoint presentations (as PDF) of most Extension entomology programs conducted during the past 12 months.

PowerPoint Presentations/Webinars

Click Here for the powerpoint shown today

This presentation will be posted at the Insect Information Website

- Housed at Department of Bioagricultural Sciences and Pest Management
  - Search "BSPM CSU"
- Within "Extension and Outreach"
- "Insect Information"
  - Extension presentations for 2019 posted at bottom of page

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