

# Colorado State University



BED BUGS IN SCHOOLS

# BED BUG MYTHS



- Bed bugs transmit disease.
- Bed bugs are more common among lower income households.
- Bed bugs are attracted to dirty homes.

American Pest Management, Inc. survey, 1/12/11

# BED BUGS SUCK!

Feed on  
blood,  
mainly at  
night.



Attracted by warmth and CO<sup>2</sup>.

# HEALTH EFFECTS

- Not known to vector pathogens
- Bites cause mild to serious skin reactions
- Potential allergen and respiratory effects
- Sleep disturbance
- Delusional parasitosis

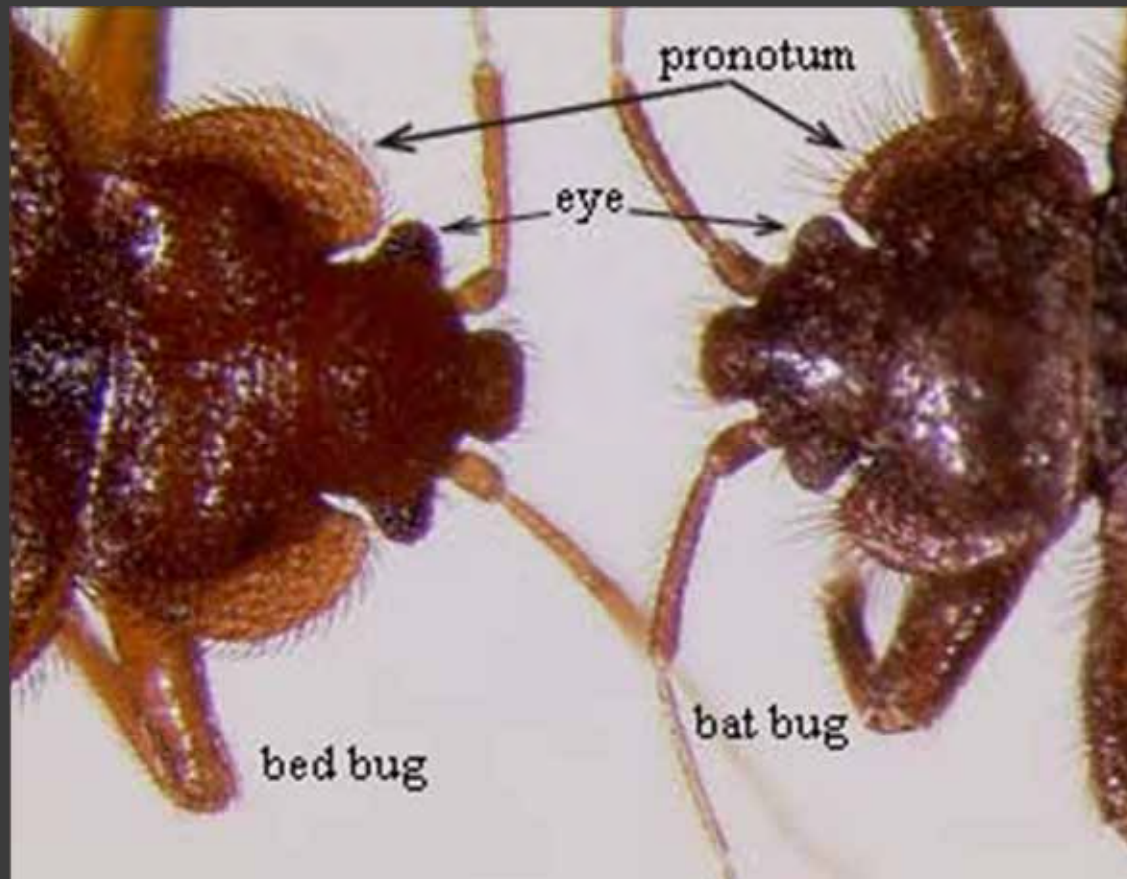


- Straw-colored to reddish-brown
- Oval
- Wingless
- Segmented bodies
- Covered with short, golden hairs
- Size of a pencil eraser

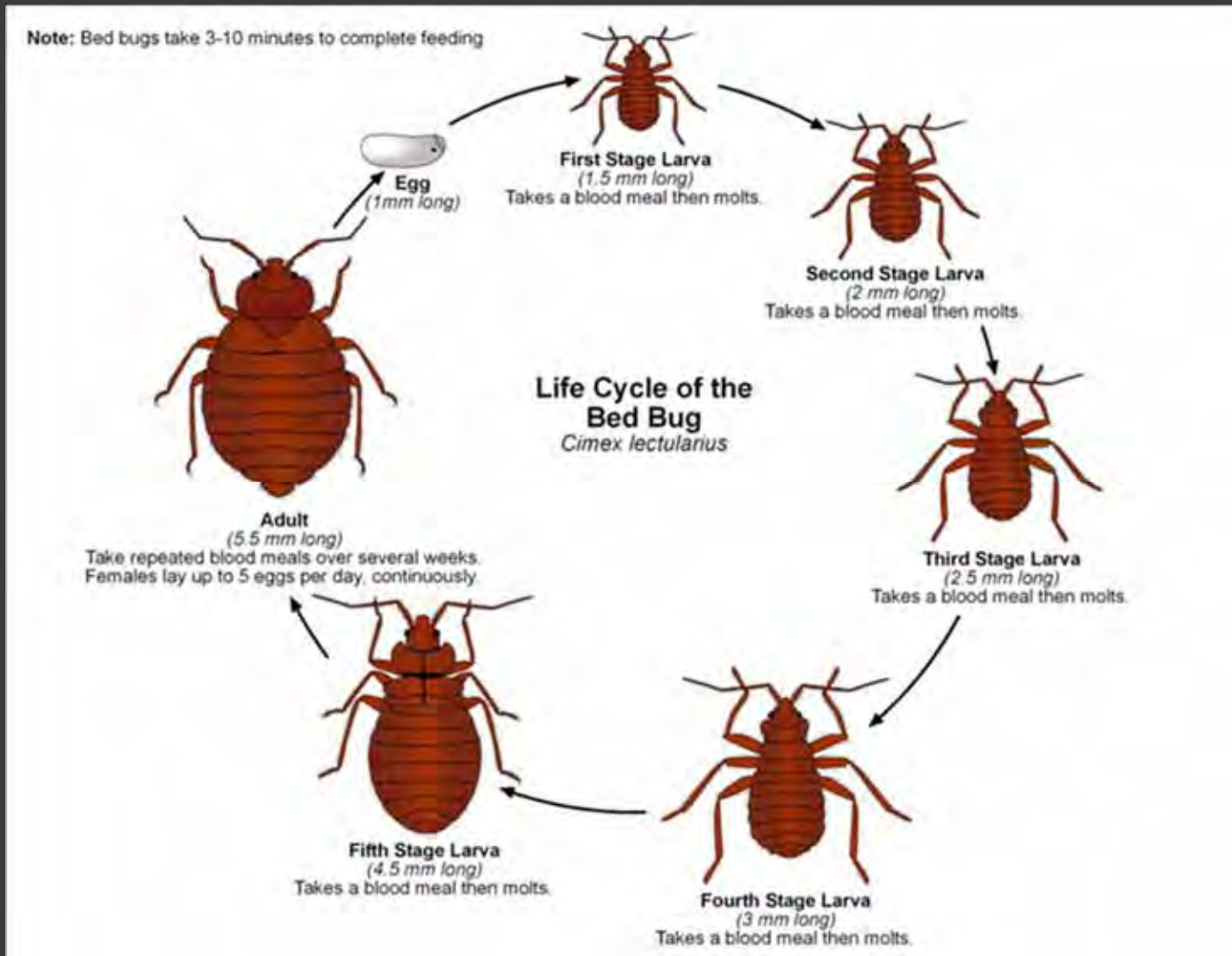


*Cimex lectularius*

In Colorado, the most commonly encountered species, after bed bugs, is the bat bug, *Cimex adjunctus*.



# LIFE CYCLE





- Female bed bugs lay  $> 500$  eggs; 2 – 5 eggs per day.
- Eggs laid in crevices.
- From egg to adult in 5 weeks to 4 months.





1<sup>st</sup> and 2<sup>nd</sup>  
instars



2nd instar bed bug (Scale in 32nds of an inch)

- Can survive >18 months without blood

- Adults live about 10 months

- Remain active at <math><45^{\circ}</math> F



# DETECTION





Inspect for  
bed bugs, molts,  
blood, fecal stains,  
sweet smell.

Look at backpacks,  
coats, upholstered  
furniture, faculty  
lounge, nurse's office.



# TREATMENT

**The best control strategy is a combination of techniques, using products that pose the lowest risk to our health and environment.**

- Dispose of infested items OR treat in hot (140°) dryer for 20 minutes.
- Remove clutter. Vacuum to remove bed bugs and the debris that provides them with shelter.
- Eliminate shelter by sealing cracks and crevices with a silicone based sealant. Seal around utility conduits.
- Spraying alone is NOT recommended.

# RESEARCH NEEDED

- New products
- Repellents
- Cold/heat/steam treatment
- Detection
- Biocontrol –  
fungi, nematodes



WE NEED YOUR HELP!

