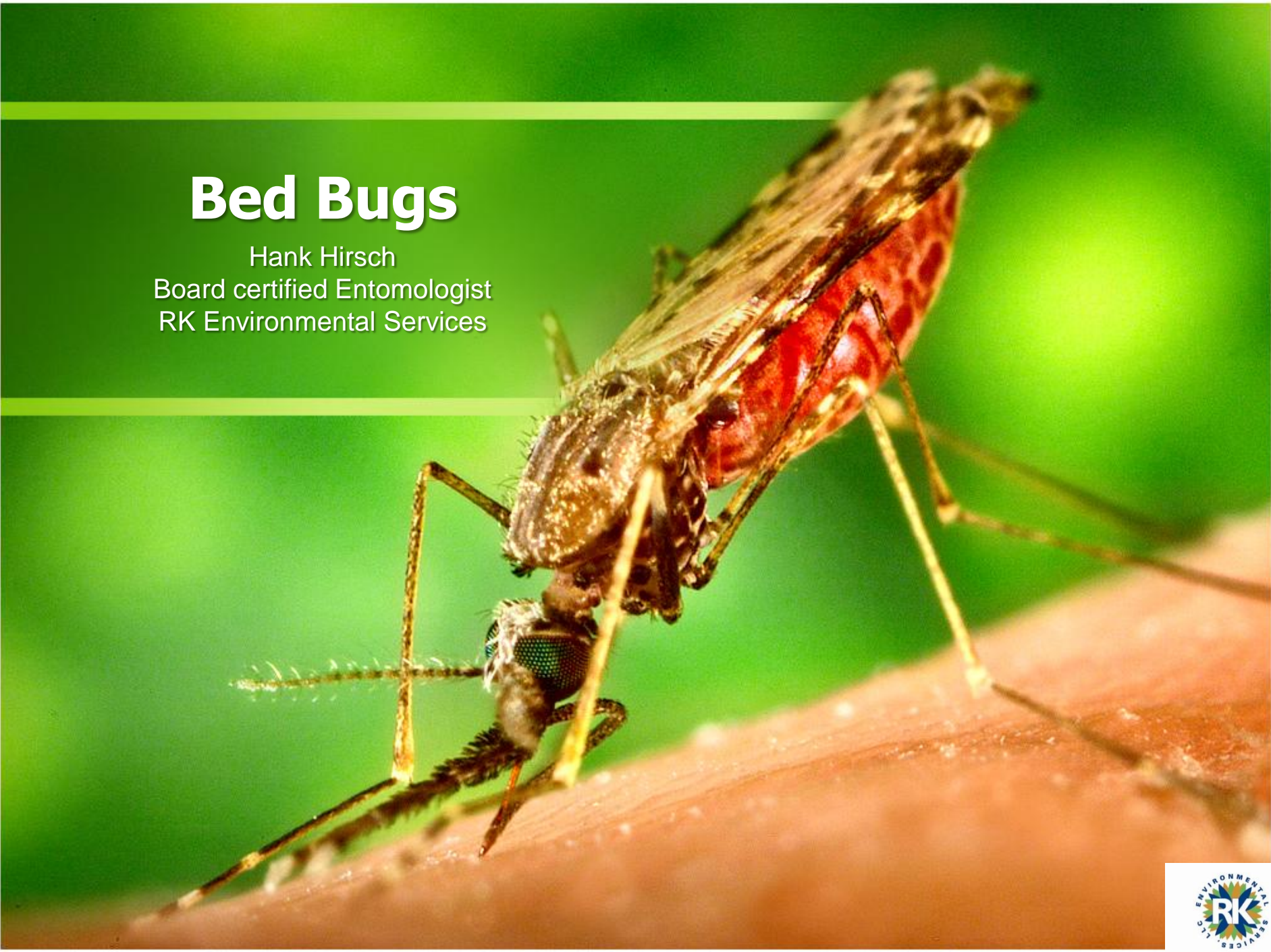


Bed Bugs

Hank Hirsch
Board certified Entomologist
RK Environmental Services



History

- Introduced into the US in the 1700's – ship's from Europe.
- 1950's DDT was responsible for a marked decrease in bed bug populations.
- DDT was banned in 1970 and populations are on the rise. Infestation levels are on par with mid-century statistics.
- World Travel!



Biology

- Nocturnal – “Bed Bugs”
- Ectoparasite of primarily of humans – attracted to warmth and carbon dioxide. Piercing-sucking mouth. Inject anticoagulant and anesthetic.
- Feed every 5-10 days but can live up to 18 months w/o a blood meal.
- Adult bedbugs are reddish brown, flattened, oval, and wingless, with microscopic hairs that give them a banded appearance.
- Do not transmit disease (Murtha Staff Infection)



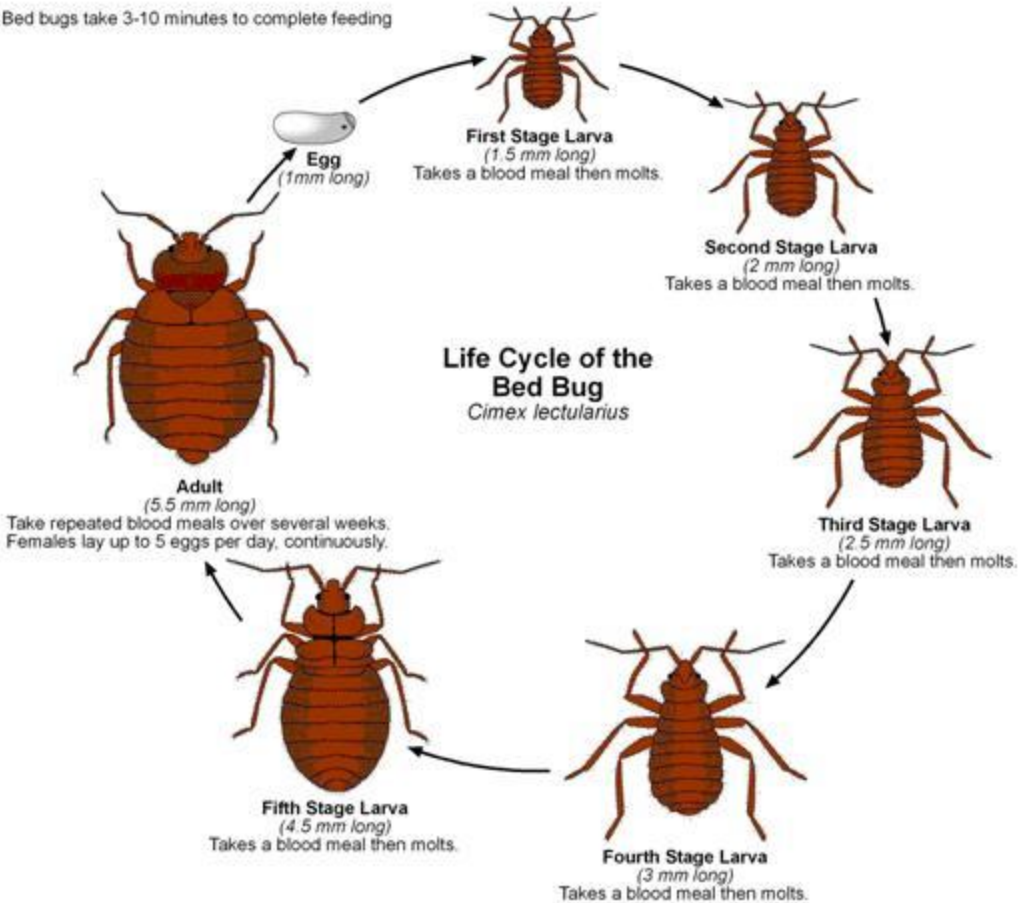


Bed Bug Biology

- A blood meal is **required** for each molt but nymphs may feed once per day
- Under good conditions (85°F, 75%rh) the life cycle can take 4 to 5 weeks
- Female lays 200 - 500 eggs in her life at a rate of one to 12 per day
- Adults can live 6-12 months and nymphs up to 3 months without a meal

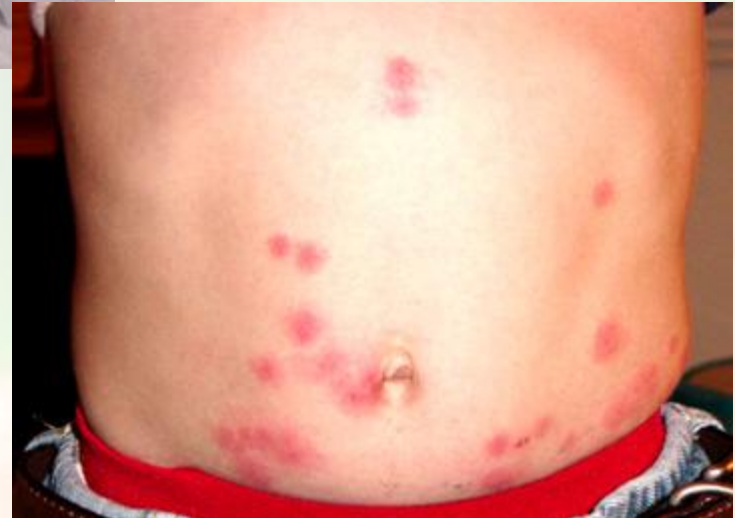
Metamorphosis

Note: Bed bugs take 3-10 minutes to complete feeding

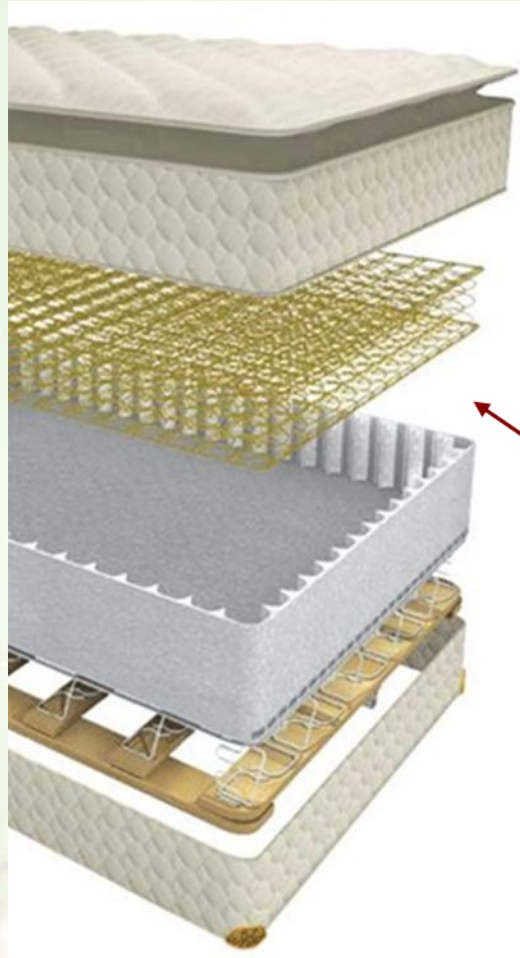


The bite





Where they hide (aggregate)



COILS OF SPRINGS

CHAIR UPHOLSTERY

HOLLOW POST OF BEDSTEADS



IMAGINE ALL THE PLACES BED BUGS COULD HIDE IN THIS SOFA.











Inspection



Traps & Monitors

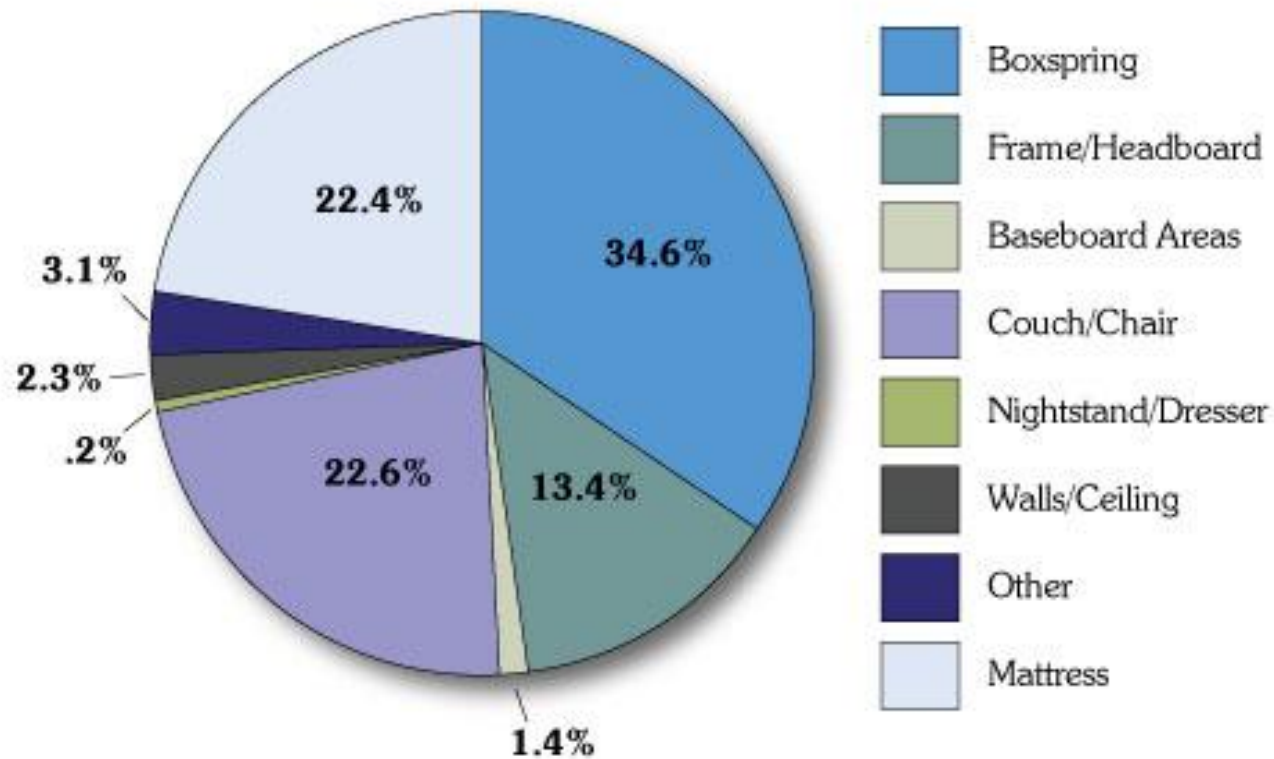


Center Well

Outer Pitfall



BED BUG HIDING SPOTS



Distribution of bed bugs found in 13 infested apartments
Source: University of Kentucky

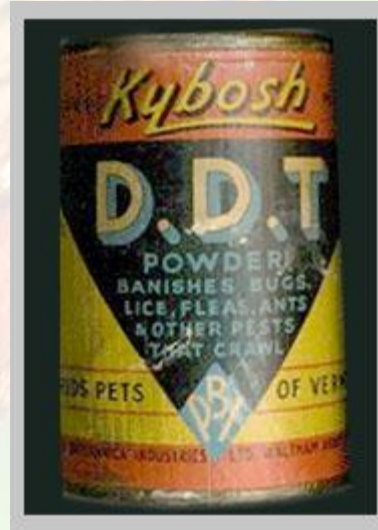
Physical Removal



Mattress Covers



Use of Pesticides



Alternative Treatments



Cryonite Bed Bugs

