

4 STEPS TO BED BUG FREE PREMISES

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Associate Professor

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EXTENSION

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Let's Beat the Bed Bug!

Homeowners & Tenants Property Owners & Managers Students Travelers Pest Management Professionals Home Visitors Public Facilities

Hiring a Pest Management Professional

Prevention and Control Kits
These bed bug prevention and response kits are designed to be a simple tool that individuals can use to begin designing a bed bug prevention and control program. These

Resources
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PLOS ONE

RESEARCH ARTICLE

Mark-Release-Recapture Reveals Extensive Movement of Bed Bugs (*Cimex lectularius* L.) within and between Apartments

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Abstract



Our Goal for Today

Discuss the issues being
encountered with controlling
bed bugs

and

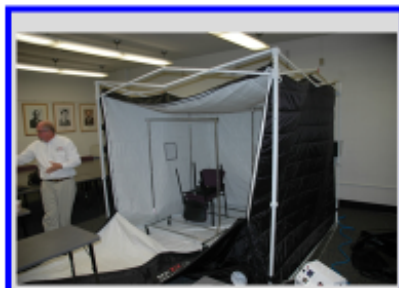
how the you can avoid
“chasing” the problem



Methods of Dry Heat



Electric

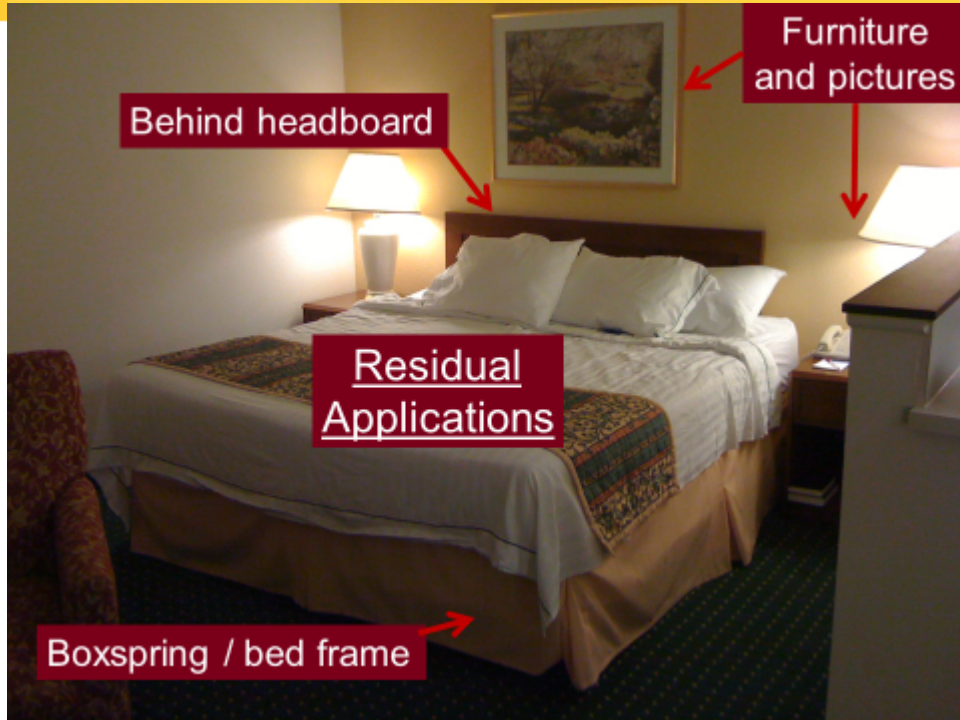


Gas



Whole Room Heating

Container or Chamber Heating

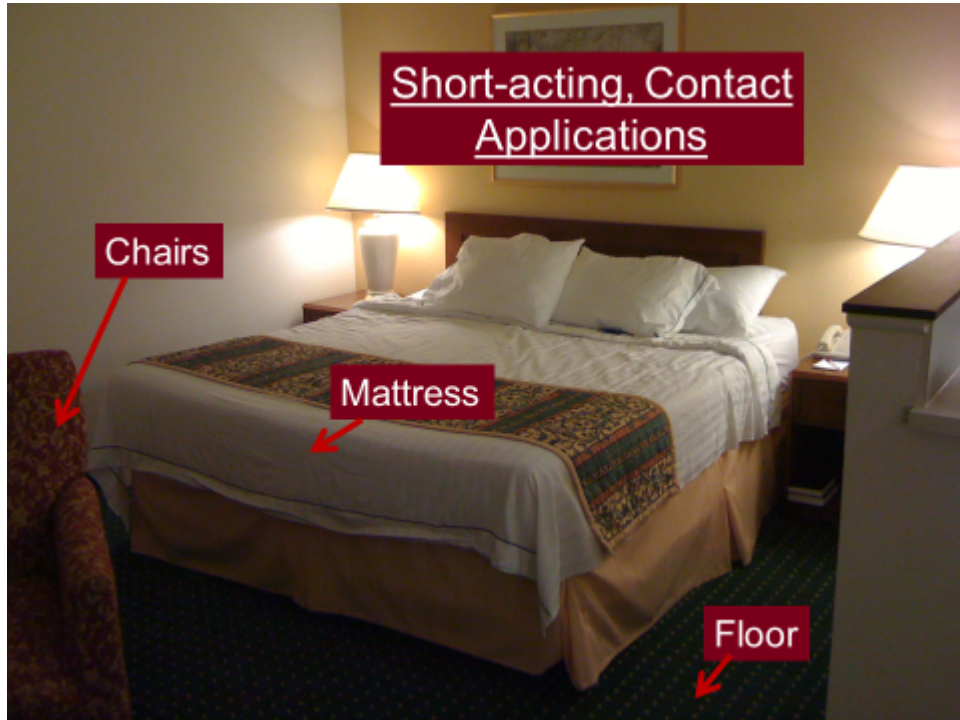


Behind headboard

Furniture and pictures

Residual Applications

Boxspring / bed frame



Short-acting, Contact Applications

Chairs

Mattress

Floor



Dust Applications

Sealing preferable, but...

Actually, killing bed bugs is figured out

- It could be made faster, cheaper, easier and/or safer
- But realistically this will take more research into the biology of bed bugs

So Kells,

- If you are so confident about control solutions, why do we still have problems?
- Answer: The controls work, but how, when and where controls are used frequently result in bed bugs surviving to bite another day

Within the control area – they are dead

*But bed bug sources outside the control area
are ready to re-infest*

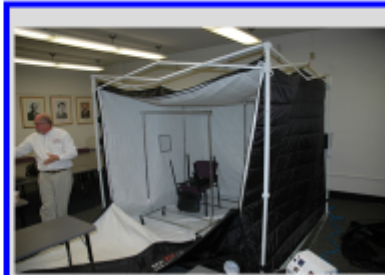
Why are bed bugs so tough to control?

- We are not being thorough enough when addressing infestations
- We see many problems to their control and we chase these problems
- We do not look at the bigger picture, so bed bugs always seem one step ahead
- We are quick to blame others for the issue(s)
- We think that we are dealing with “*superbugs*”

Methods of Dry Heat



Electric

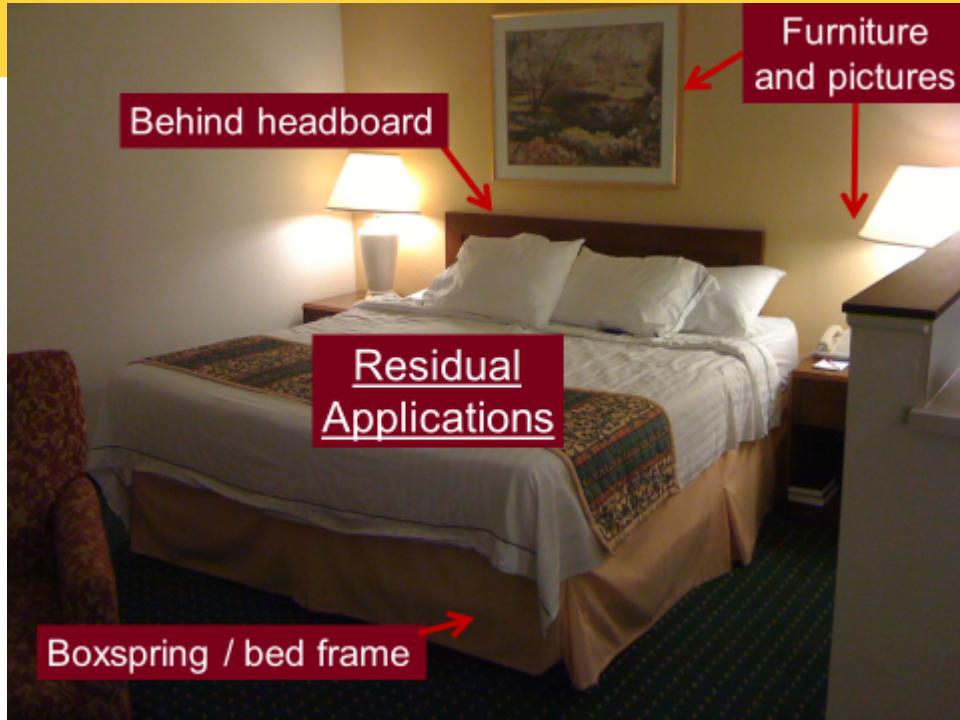


Gas



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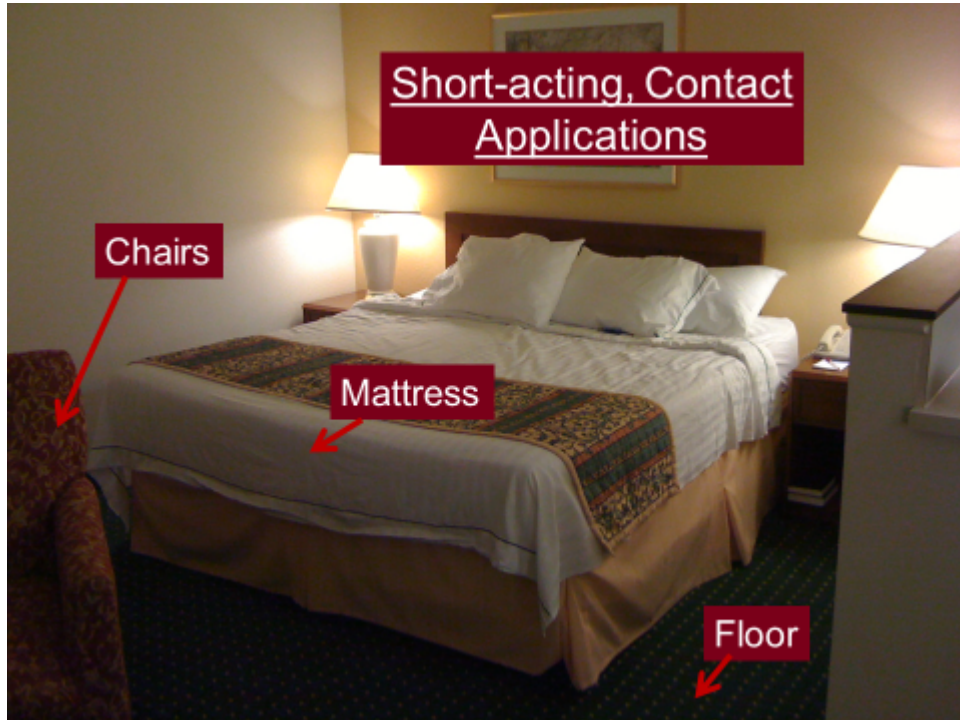


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Sealing preferable, but...

Four tips for dealing effectively with infestations

Bed Bug Control Tip #1

- Your goal should be eradication from an infested living space and prevention of future re-occurrence
- Pest management becomes a series of eradication and prevention steps (and other practices)
- It should be contracted this way!



Bed Bugs are NOT Cockroaches

- For eradication, localized applications of insecticides will not control bed bugs
- Use three formulations of insecticides to the fullest extent permitted by the label
 - Residual, contact insecticide, dust

OR

- Deliver heat to as many areas and use insecticides in unheated areas



Where does pest management fit in?

- In multifamily housing, the pest management program:
 - Addresses continued spread of the infestation
 - Ensures tenants know their responsibilities and properly prepare for control procedures
 - Informs landlords of likely scenarios where it might be tough for tenants to comply with instructions
- Successive eradication and prevention events result in progressively fewer re-infestations





Tip #1 summary...

- Expect ***Eradication*** and ***Prevention*** practices within each living space
- Expect ***Pest Management*** as the plan to progressively eradicate and prevent bed bugs in all living spaces

Bed Bug Control Tip #2

- Make sure you are actually dealing with bed bugs!

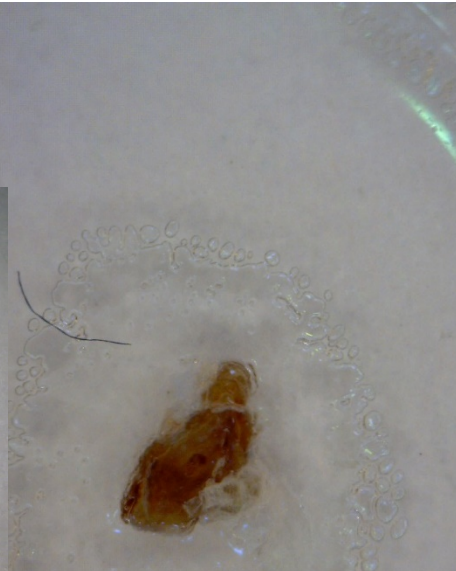
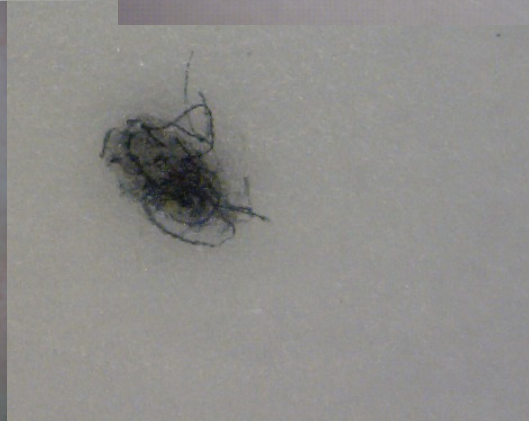
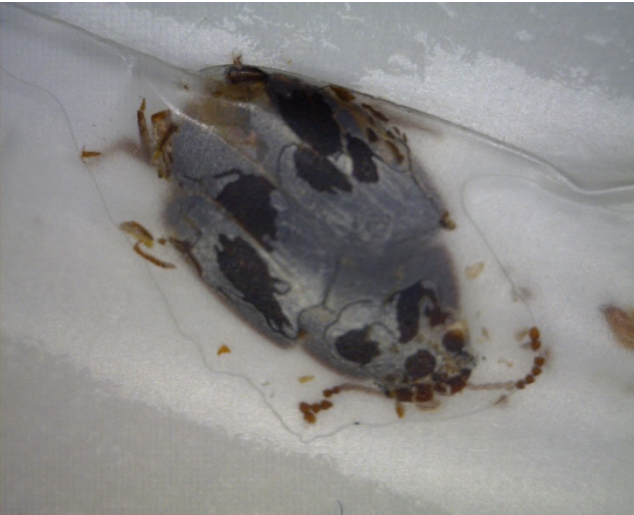


“I didn’t realize they were so big”



Of samples submitted...

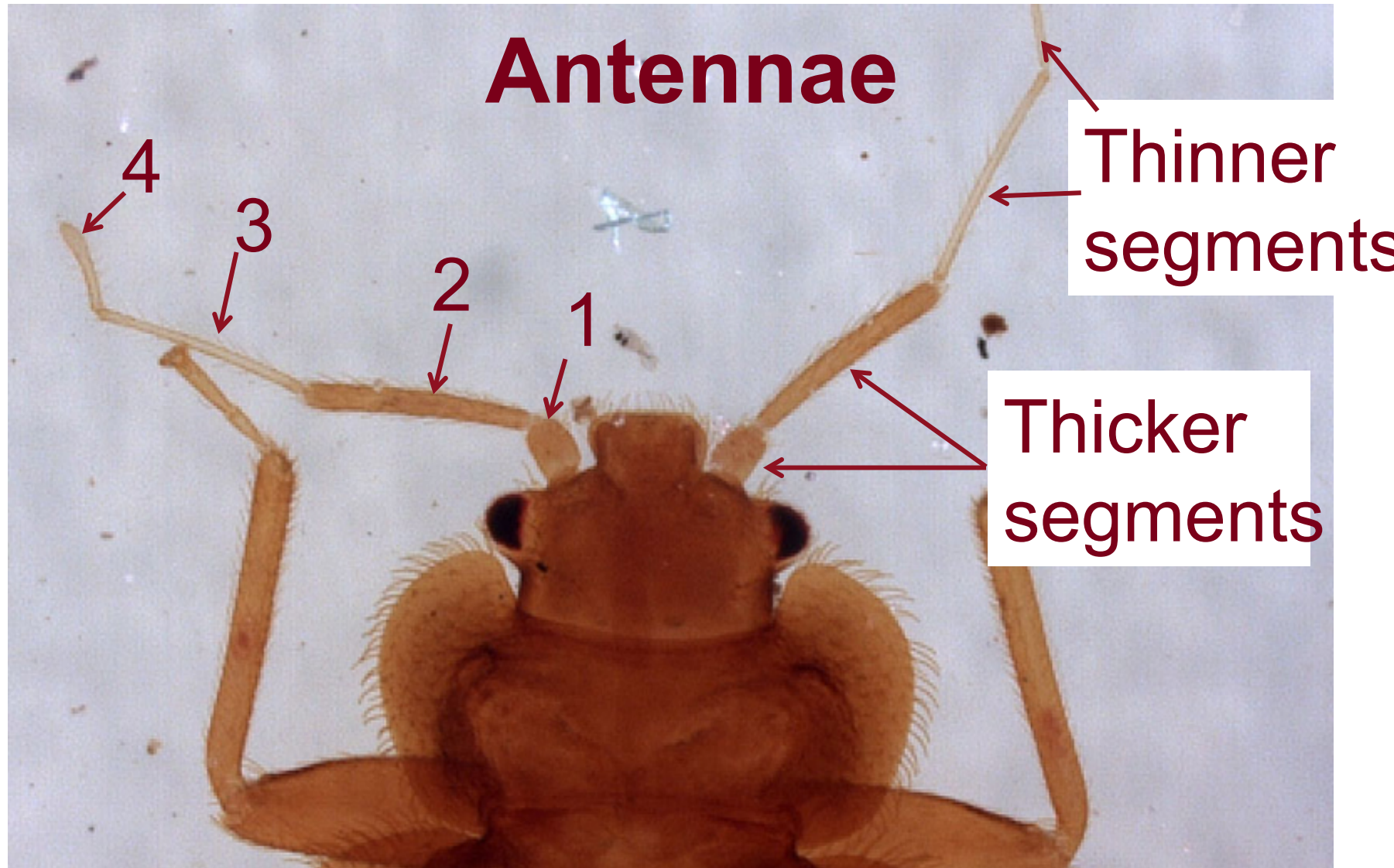
76% were not bed bugs



Even if it is a “bed bug”...



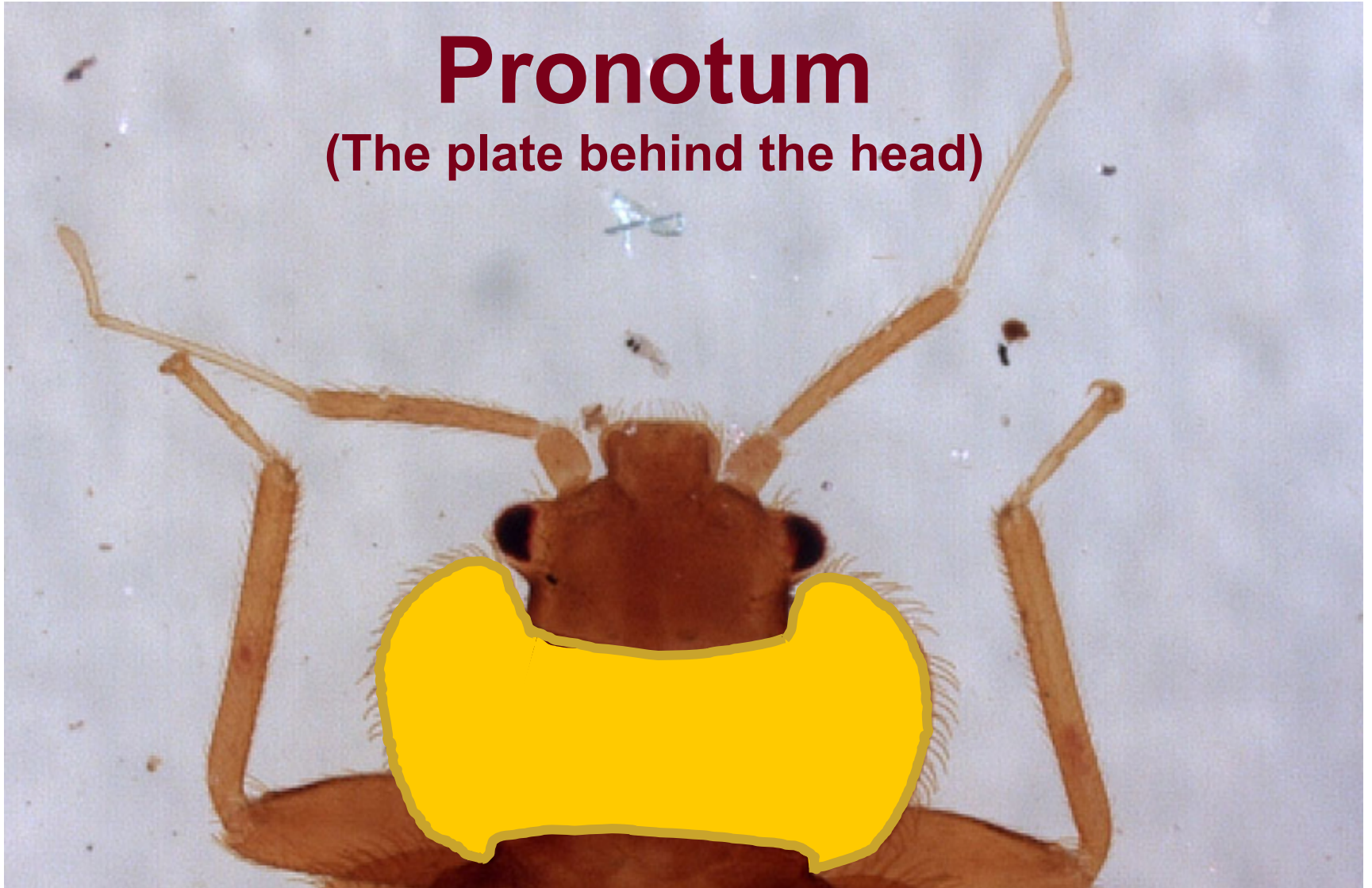
Key identifying features of bed bugs



Key identifying features of bed bugs

Pronotum

(The plate behind the head)



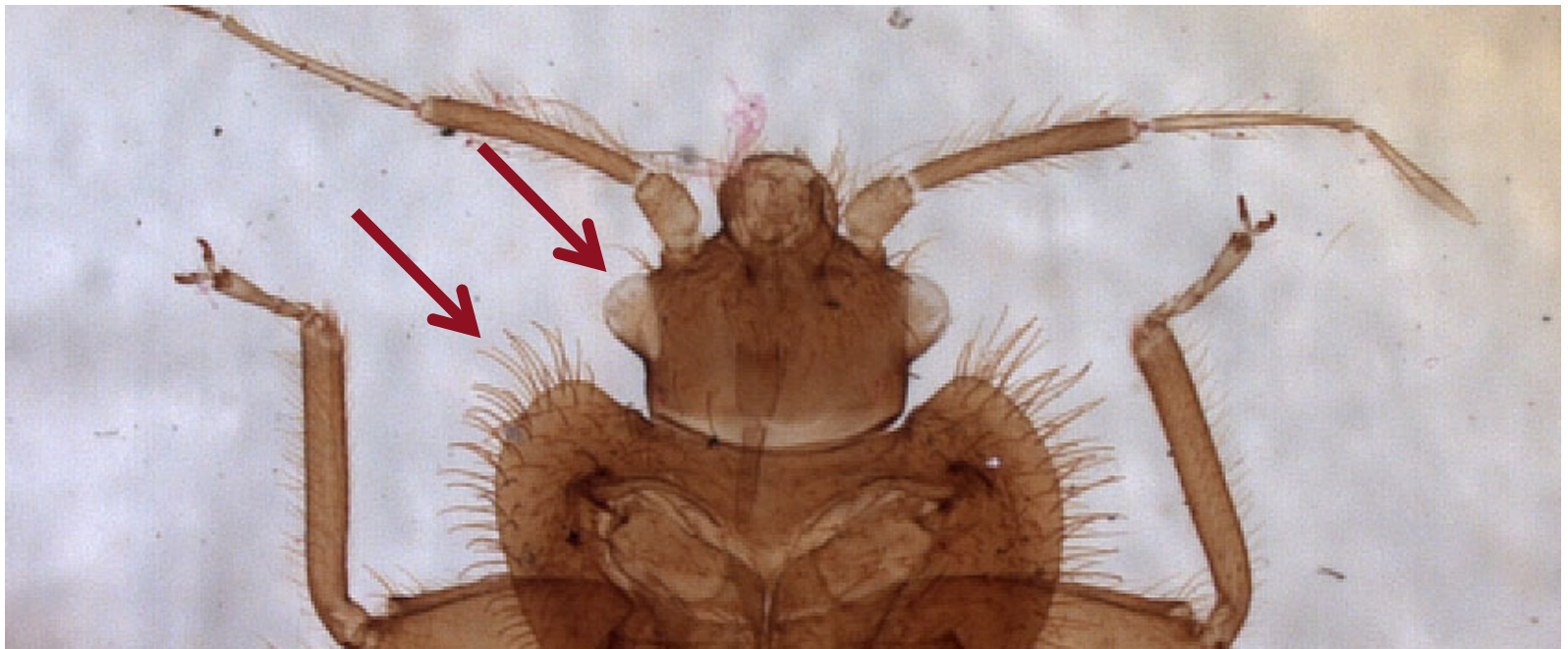
Key identifying features of bed bugs

Pronotum
AND the hairs!





“Hairs longer than $\frac{1}{2}$ the eye diameter



Key identifying features of bed bugs



Tip #2 summary...

***Use tools of
the trade***



or

***Ask your Pest Control Company
or Extension Service***

Bed Bug Control Tip #3

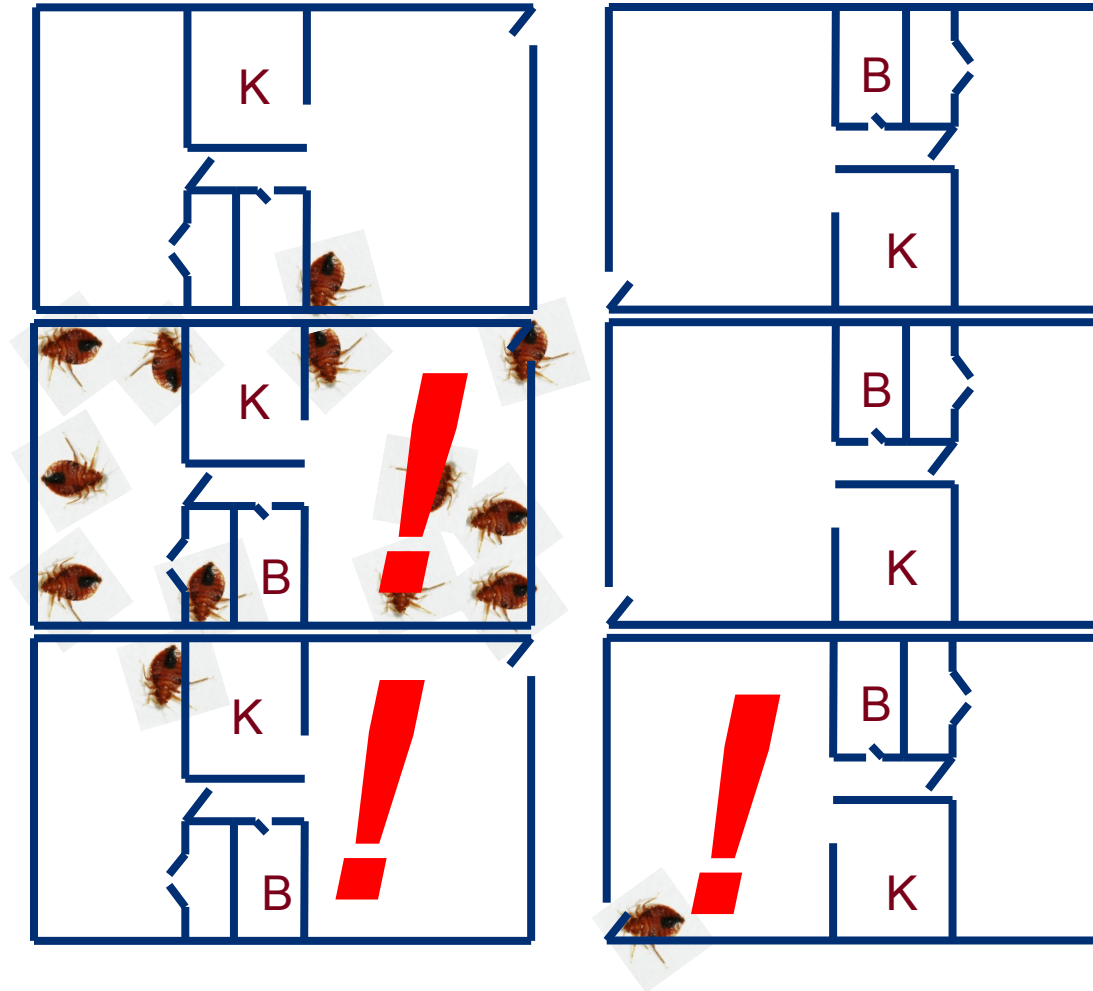
- Bed bugs are specialists in living next to people
- They hide
- They feed
- They hide
- They disperse



This is done under the “radar” until...



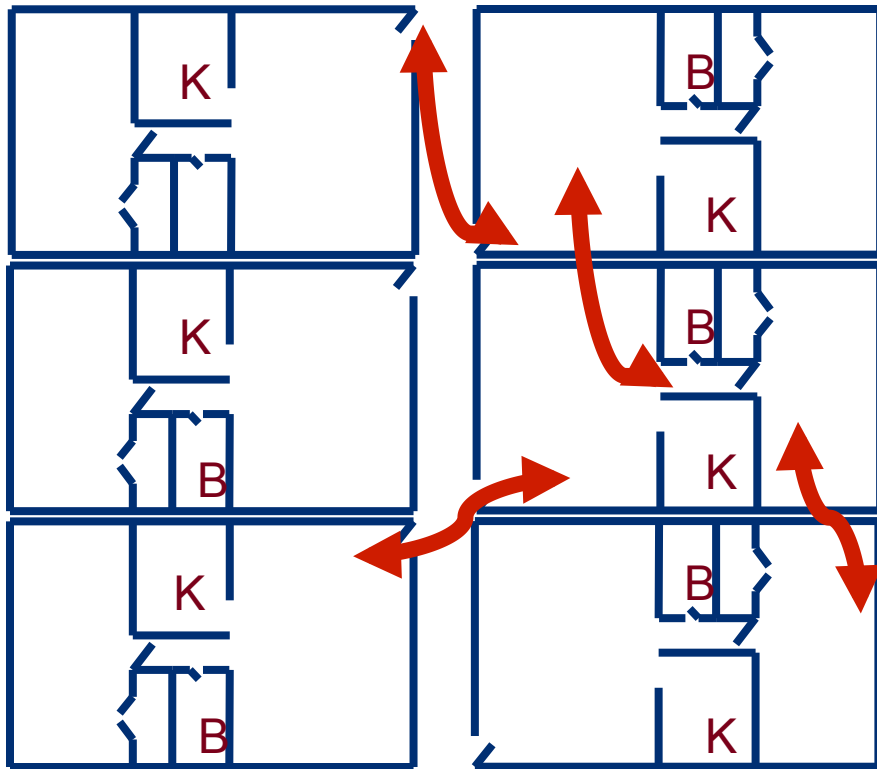
When just responding to complaints



Recognize Consequences of Dispersal

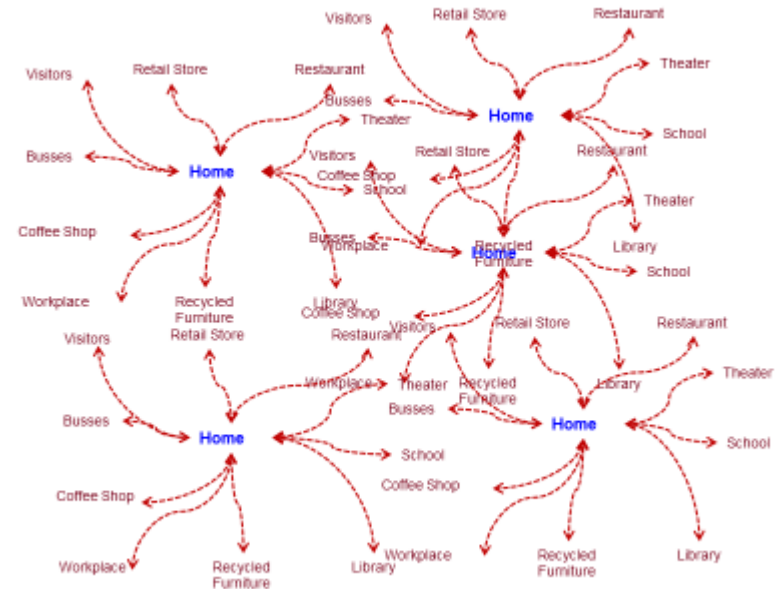
- Do not just focus on just the bedrooms
- Do not just focus on the complaint
- Ask yourself: Are there other areas that multiple families will use which could be harboring a bed bug infestation?
 - laundry rooms and common areas
- Ask about visitors to homes where a chronic infestation has occurred.
 - Is it possible that this is where the infestation is originating?
- Check neighboring living spaces, especially across the hallways

The connections



Apartments

In apartments, homes and duplexes



In chronic sites look for the connections

- Items traveling with the tenant
 - Backpacks, computer bags
 - Medical devices: walking casts, prosthetics, wheelchairs and scooters
 - Books and toys from libraries
 - Musical instrument cases
- Items visitors might carry in
 - “On the side” businesses: shoe boxes, pictures, other items being sold

Tip #3 summary...

- Expect they will always be ahead of your control activities
- That is, until you begin to see real reductions
- Sell the expectation that you can address this



Bed Bug Control Tip #4

- People are very uninformed of bed bugs
- IN FACT: they usually do not want to know, unless they happen to get bed bugs
- Teaching has to be done through your actions



“... and why do you do this?”



What are common trends?

- Phone calls or emails: Oct 2011 – Aug 2014
 - 1,948 contacts

Question Type	Number	Percent
How do I get rid of bed bugs on my own?	324	16.3
Landlord is not taking care of bed bug situation	187	9.4
How do I know if I have bed bugs?	179	9.0
How do I prevent bed bugs?	170	8.5
Can I get a sample identified?	157	7.9
What can I do about bed bugs while traveling?	144	7.2
How do I identify these bites?	132	6.6
Bed Bugs in Public Places	104	5.2
I am looking for an education/training opportunity	92	4.6
Where can I get assistance for low-income?	85	4.3

Phone Calls and Emails



Webpage Views



Hiring a professional pest control service? <0.6% (20th)

*DIY
Landlords
ESL, LEP*

Top 15 page views

Page Title	Page View	Percent of Total Page Views
Laundering Items for Bed Bug Control	94,885	20.4%
Using Freezing Conditions to Kill Bed Bugs	50,139	10.8%
What Not to Do When You Have Bed Bugs	41,462	8.9%
Bed Bug Control in Residences (Arabic)	38,632	8.3%
Home Page	32,717	7.0%
Controlling Bed Bugs by Hand	17,097	3.7%
Bed Bug Control in Residences	15,504	3.3%
Have I found a Bed Bug?	15,024	3.2%
How to Inspect your Hotel Room for Bed Bugs	14,004	3.0%
Controlling Bed Bugs by Hand (Spanish)	13,827	3.0%
Controlling Bed Bugs by Hand (Arabic)	13,593	2.9%
Guidelines for Dealing with Bed Bugs in School Settings	9,513	2.0%
Using Steam to Control Bed Bugs	8,175	1.8%
What Not to Do When You Have Bed Bugs (Arabic)	7,898	1.7%
Home Owners and Tenants	7,097	1.5%

Hiring a professional pest control service? 0.5% (33rd)

Delivering proper and useable instructions

- Preparation instructions need to be thorough but not overwhelming
- Working with populations who have limited English or reading abilities
 - Translate into most common languages
 - Create “picto-gram” instructions
- Find out if there is help available through social services, or other organizations



Minneapolis

Health Department



Karen Organization of Minnesota
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Avoiding discarding furniture

- Do not ask your clients to discard furniture
- Furniture is expensive to replace
- It may spread the infestation if brought into other homes
- If a client can not afford new furniture they may acquire old/used items which may re-introduce an infestation



Reporting non-compliance

- Find out why preparation instructions were not followed and report to housing management
- Careful with landlords using non-compliance continuously to recoup costs



“I’m sorry, you moved every thing out into the hallway as instructed, except that picture hanging on the wall.”

“So I can’t do the control and I have to report this as non-compliance”

We are quick to blame others for the issue(s)

Pest Control

Tenants

Property Management



We love controversy and conflict!



We each have responsibilities...

No entiendo,
Kuv tsis nkag siab

Ok, will you
show up, as
planned?

Please properly
prepare your
apartment like

I need you to
report and take
steps to prevent

I'm having
problems
preparing.
Why are people
in my apt?

Pest

Control

I expect to see
results and not
chase the
problem!

The labor
required may
cost more

Then let's see
your plan for
Eradication and
Prevention

**Property
Management**

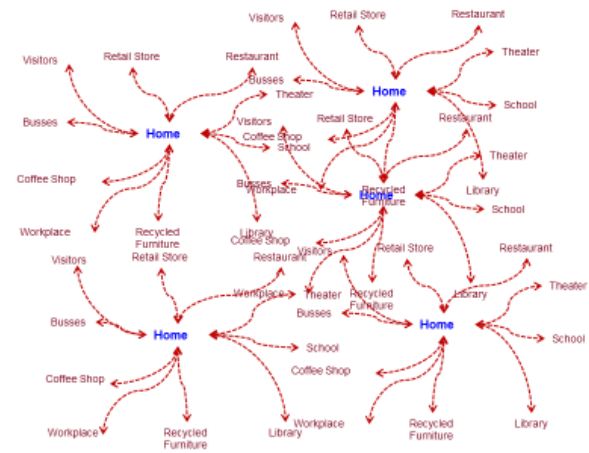
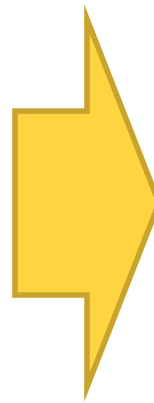
Tenants



This is a public health issue!

- But other issues are pushing bed bugs to the sidelines
- Bed bugs are a societal systemic pest

In apartments, homes and duplexes



As a property manager or owner

You have the power to set this right!

- Demand more from you pest management provider
- Ask and encourage the residents to help themselves and your efforts
- Be aware of what is happening throughout the process
 - Track problem apartments and find out why
- Demand more from government, public health, social services, cities and other property managers...

Always remember...

- Bed bugs are a “boom or bust” type of insect
- When conditions are right, they will thrive!
- Put pressure on the whole infestation and
it’s a “*House of Cards*”

Tip #4 summary...

- Monitoring or building sweeps for bed bugs
- Encourage reporting
- Expect results from pest control

- Stop the blame game!



To summarize...

- We have the tools, but usually there are issues with the delivery
1. Eradicate and prevent in areas with bed bugs, use the pest management program to plan your E&P events
 2. Proper identification, not just the bug, but the extent of an infestation
 3. Bed bugs are specialists, but they are predictable and have weaknesses
 4. Let your actions speak volumes! Be aware when your communication is not enough. Focus on the bed bugs



bedbugs.umn.edu /
bedbugs@umn.edu



Lets Beat the Bug



Bed Bug Infoline:
1-855-644-2200
612-624-2200



@letsbeatthebug

Thank you!

Questions?

