

# Bed Bugs Can be Prevented and Controlled Safely

Daniel Kass  
Acting Deputy Commissioner

Division of Environmental Health  
NYC Department of Health and Mental Hygiene



NEW YORK CITY DEPARTMENT of HEALTH and MENTAL HYGIENE

# What do they look like?



- Adult bed bugs are about  $\frac{1}{4}$  inch long they are reddish brown, with oval, flattened bodies
- After a blood meal they are dark red, rounded (distended), and  $\frac{3}{8}$  inch long
- The immature (nymphs) resemble the adults but are smaller and somewhat lighter in color



# Signs of bed bugs

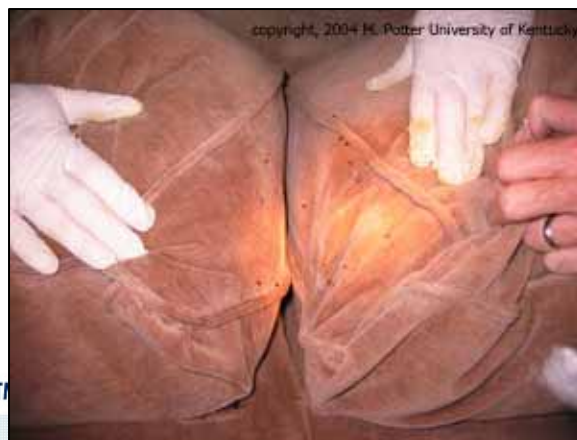
**Eggs and droppings**



**Adults nymphs,  
droppings, stains**



# Places where bed bugs hide





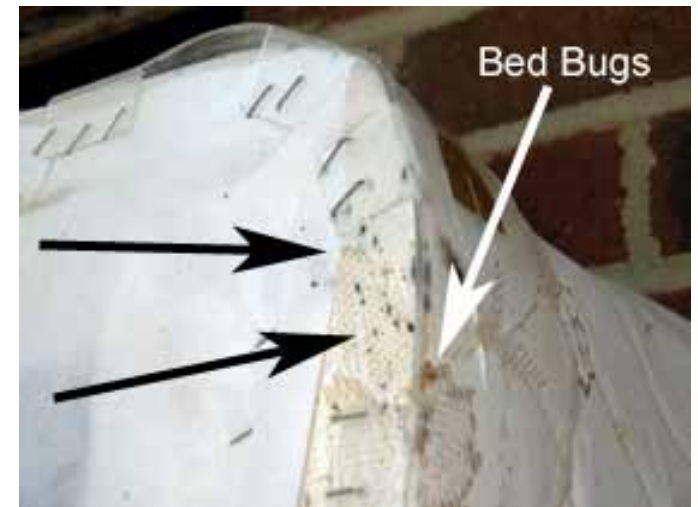
# Where do they live?

## Residential:

- Bed bugs live in undisturbed places as close to the host as possible (the mattress, box spring, bed frame, headboard)
- But.....some distance, sometimes



copyright, 2004 M. Potter University of Kentucky

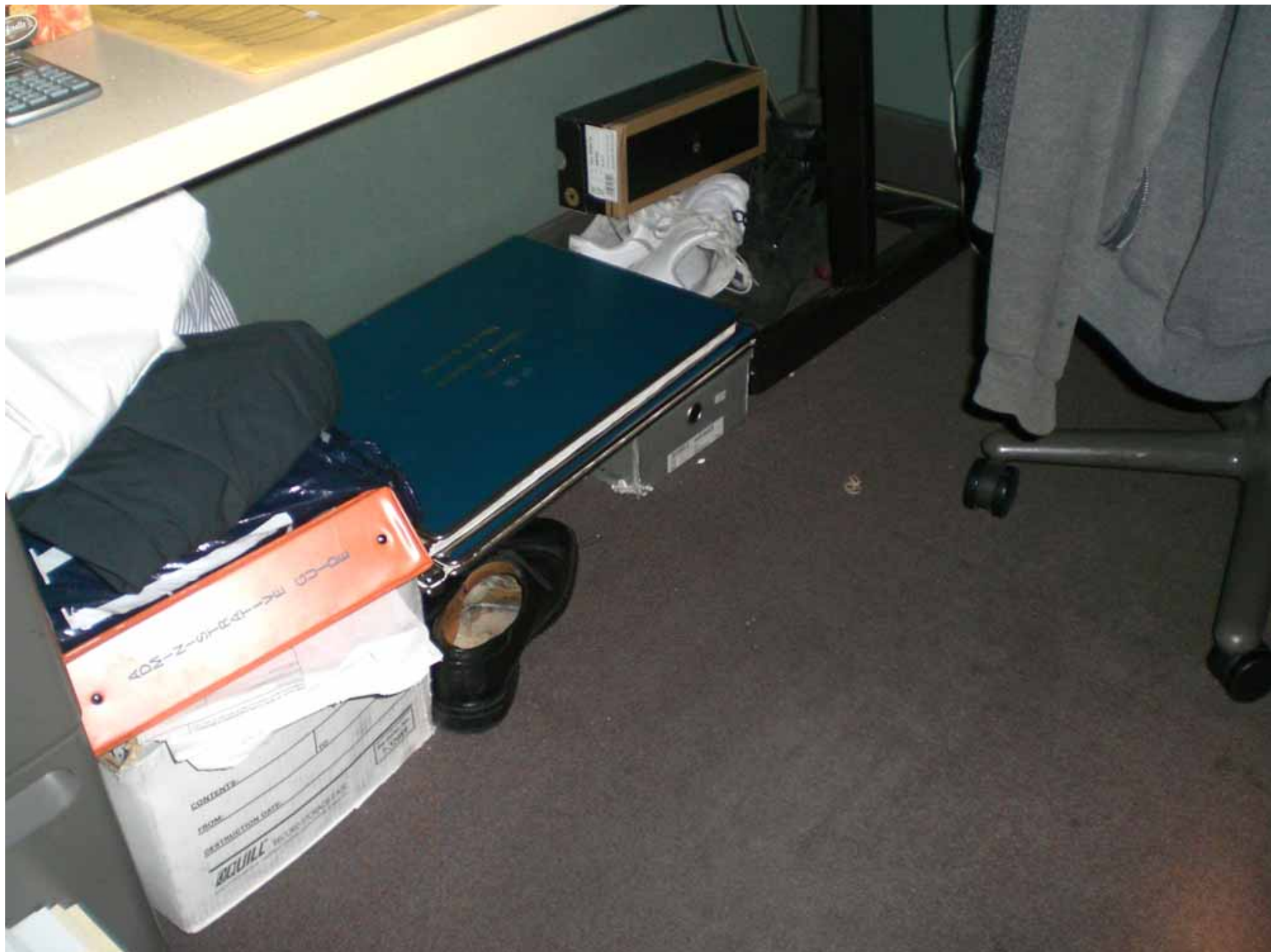


## Bed bug basics (generalized)

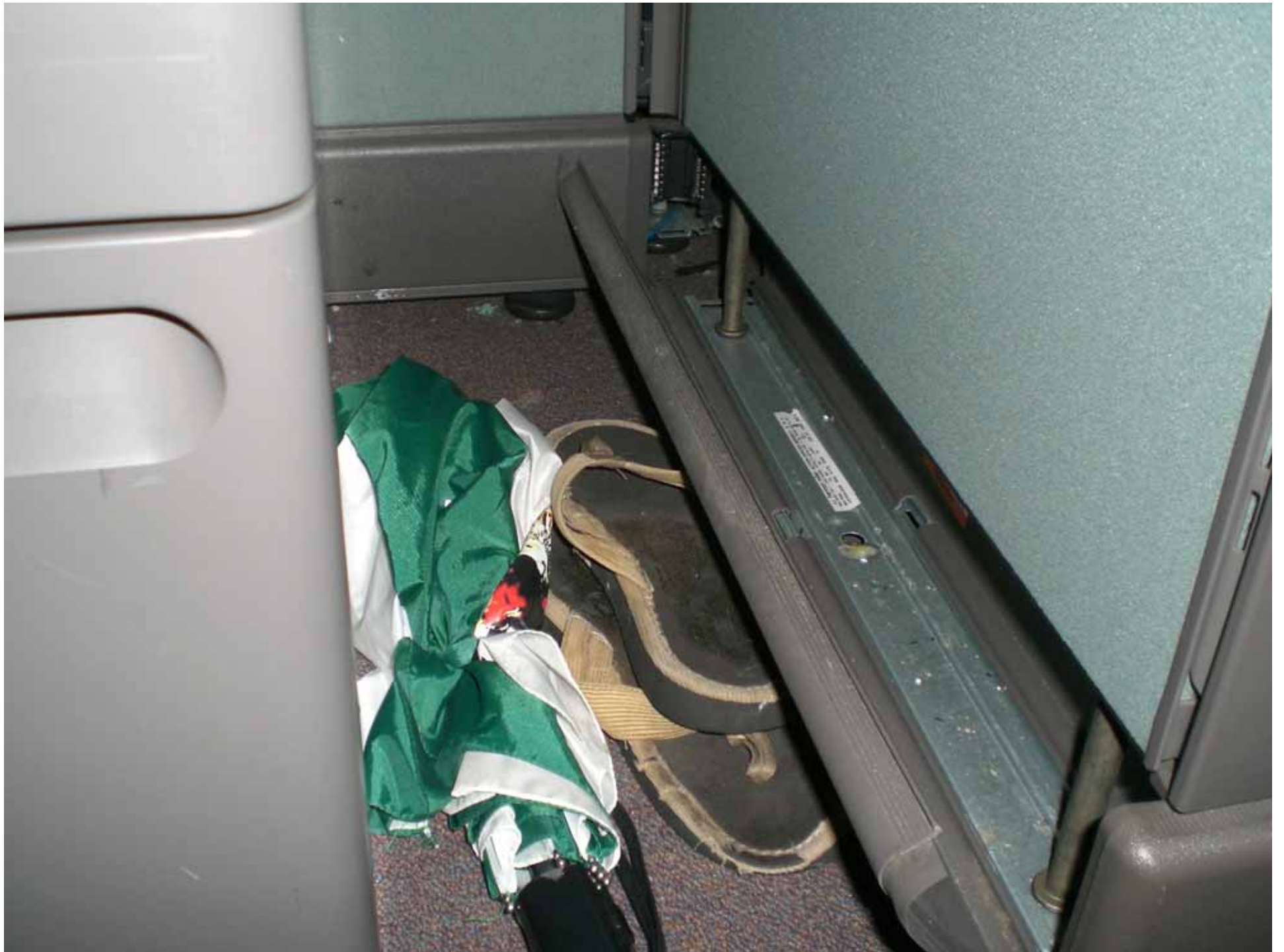
- Life cycle; egg to egg; 4-5 wks
- Adults can live for up to one year w/o blood
- Female can lay up to 500 eggs in lifetime
- Prefer close to host: <15 ft., but can travel up to 100 ft. for meals.
- 3-10 minutes for feeding from typical host.

## Commercial environments (e.g., Office buildings, comm. trains, restaurants, retail stores, etc.)

- Bed bugs may be brought into *any* premises on purses, backpacks, clothing, etc.,
- But bed bugs *usually* do not become **established as breeding infestations** in the *typical* office /commercial store environment.
- However.....

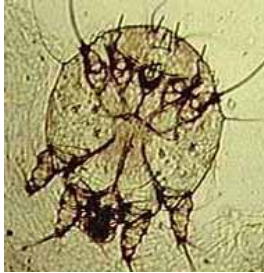




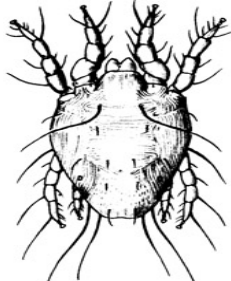




**Bed bugs and bed bug bites are often confused for other insects and bites.**



Dust mites



Head  
Lice



- **Scabies**
- **Dust Mites**
- **Carpet beetles, cockroach nymphs, spider beetles (from old rodent baits).**
- For bug IDs, send photo or specimen into NYS Extension Service Entomologist (Dr. Jodi Gangloff-Kaufmann at Cornell University Long Island campus).

**Other conditions**

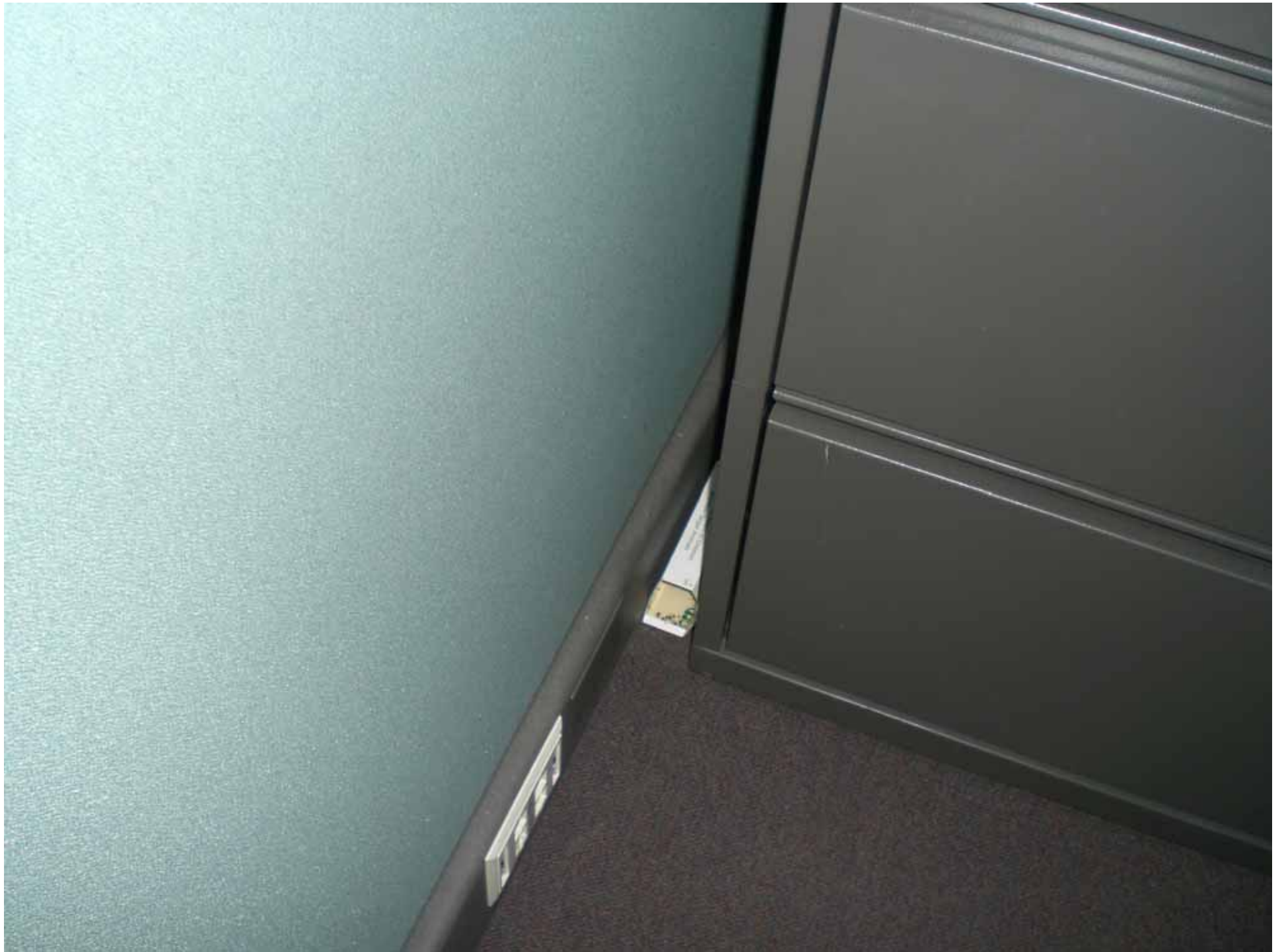
- Allergic reactions
- Dermatitis
- delusory parasitosis



## **Commercial environments (e.g., Office buildings, comm. trains, restaurants, retail stores, etc.)**

- **Current bed bug “paranoia”**
- **Inspection / confirmation +/- bedbug infestation=PMP.**
- **Peace of mind for employees**
- **Protection of transporting bugs from office to home.**









But.....

- Insects found in areas away from sleeping or resting areas, and in the absence of any bites are highly unlikely to be bedbugs.



# PREVENTION AND CONTROL

Photo by  
Ray Lopez



# Why are Bed Bugs Resurgent?

- Many uncertainties; likely multi-causal. Reasons likely include:
  - Increased travel
    - Efficient hitchhikers often transported in or on luggage, clothing
  - Congregate living
  - Change in pest control practices
    - Reduced preventive pest control
    - Decreased residual use

# How Bed Bugs Spread

- Hitchhiking
  - Carried on belongings, sometimes on people (never attached to people)
- Wandering
  - Move from room to room/apartment to apartment (gaps in the walls, voids, electric heat and phone lines conduits)
  - Host has left the building
  - Irritated by sub-lethal pesticides
  - Population gets high, females repeatedly inseminated wander off to new locations

# Bed Bug Prevention and Eradication for Owners and Managers

- De-stigmatize bed bugs
- Respond quickly and widely
- Hire well-trained and high quality professionals
- Treat tenants as partners



# Why Stigma Matters

- Often, people wait too long to admit a problem
- Unwillingness to alert neighbors contributes to spread
- People take matters into own hands, often resorting to unsafe use of pesticides, illegal products and hazardous and ineffective remedies

# Respond Rapidly

- Have a pest control professional on hand
- NYC Housing Code obligates owners to respond
- NYC Health Code requires more than just spraying pesticides
- Treat each “case” as indicative of potential wider infestation
- Press tenants to cooperate with inspections and treatments

# Partner with Professionals

- Pesticides should NEVER be applied by any pest control company without a license (or by any “moonlighting exterminators”).
- Check for license at [www.dec.ny.gov](http://www.dec.ny.gov)
- Interview the company about their bed bug control experience
- Assess credentials and bed bug specific employee training
- Agree on a service plan, and its cost.
- Expect 2 or more visits, depending on the severity.
- Ask for the least hazardous but effective pesticides to be used.
- Inquire as to all non-chemical approaches (steam, mattress covers, vacuums, etc.).
- The cheapest services are rarely the best. Be wary of a company that won't estimate the full charges after the first visit.
- Review our fact sheet at <http://nyc.gov/health>

# Partner with tenants

- Preparing the home or space is critical to success
- Usually, furniture can be treated
- Provide site preparation help for those who cannot do it themselves
- Acknowledge stress and difficulty in eradicating bed bugs



# What should NOT be done for bedbugs

- Using insect bombs (by yourself or by any “professional” exterminator).
- Discarding perfectly good furniture (unless mattresses, etc. are old and severely infested).
- Purchasing gimmicks (ultra-sonic pest chasers)
- Attempting any type of DIY pesticide application program—especially onto furniture.

# Develop Preventive Policies

- Prohibit bringing in street furniture
- Require beds be removed from building pre-bagged or wrapped.
- Require that occupants provide permission to inspect for bed bug and other pest conditions.
- Preventive maintenance, sealing cracks and crevices are good bed bug prevention practices.
- Provide educational material for occupants, managers, custodial staff