MISCELLANEOUS INVADERS

Gary Alpert, Harvard University, Bugwood.org

• Invade buildings, especially during hot and dry weather
• Do not bite, sting or transmit disease
• Can give off an unpleasant odor

MILLIPEDES

Gary Alpert, Harvard University, Bugwood.org

• Most common species that invades buildings is the "garden millipede"
• Brownish-black in color and about 1” in length
• Millipedes have two pair of legs per body segment
MILLIPEDES

- Feed on damp and decaying organic matter
- Found in dark, cool and moist habitats
- May invade structures when it is too hot & dry or too wet

MILLIPEDES

CONTROL

- Reduce or eliminate harborage areas
- Inorganic mulch “strips” around the structure allow better drainage
- Prevent water from accumulating around foundation, in basements, crawl spaces, etc.

MILLIPEDES

CONTROL

- Exclusion
  - Seal cracks & openings
  - Install door sweeps
  - Seal expansion joints
MILLIPEDES

CONTROL
• Chemical control is not necessary indoors
• Outdoors, perimeter sprays may help
• Spray volume is important and the chemical must penetrate the soil

MILLIPEDES

CONTROL
• Not a good idea to use dust outdoors where children/pets may contact it

MILLIPEDES

CONTROL
• Don’t spray children’s toys or pet items
• Watch for drift
BOOKLICE (PSOCIDS)

- Tiny (1/25” to 1/13” long), soft-bodied insects
- Outdoor species referred to as barklice – adults usually winged
- Species that invade homes usually wingless
- Sometimes called psocids or paperlice

BOOKLICE (PSOCIDS)

- Feed on microscopic fungi and mold
- Found in damp, dark places:
  - Basements
  - Crawl spaces
  - Leaky plumbing
  - Over-watered houseplants

BOOKLICE (PSOCIDS)

- Found around old books and papers stored in unconditioned or damp areas
- Food goods stored in humid conditions
BOOKLICE (PSOCIDS)

CONTROL
• Reduce moisture
• Maintain relative humidity below 50%
• Seal up cracks & crevices
• Remove or dispose of items harboring mold & fungi
• Pesticides rarely needed

SPRINTAILS

• Small (1/16” – 1/8” long), wingless insects
• Use furcula to catapult themselves through the air

SPRINTAILS

• Soil-inhabiting insects
• During long periods of dry weather, springtails move and congregate around sources of moisture
SPRINGTAILS

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• Inorganic mulch “strips” around the structure allow better drainage
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SPRINGTAILS

CONTROL
• Exclusion
  ✓ Seal cracks & openings
  ✓ Install door sweeps
  ✓ Seal expansion joints
SPRINGTAILS

CHEMICAL CONTROL

• Outside, using a garden house sprayer, treat a 3-5 feet wide area around the house plus 2 feet up the foundation

DRAIN FLIES

• Adults are small (1/6” to 1/5” long), fuzzy, dark colored
• Wings densely covered with hairs
• Drain flies also known as moth flies or filter flies

DRAIN FLIES

• Larvae feed in the slimy, gelatinous film that builds up in drains and pipes
DRAIN FLIES

NON-CHEMICAL CONTROL
- Find & eliminate the source
  - Outdoors:
    ✓ where air conditioning condensate lines drain
    ✓ damaged or faulty septic lines
    ✓ where rainwater tends to pool

- Indoors:
  ✓ toilets
  ✓ sink and bathtub/shower drains
  ✓ floor drains
  ✓ condensate lines for icemakers
**DRAIN FLIES**

**CONTROL**
- Clean toilets, drain pipes, traps, etc. to remove any gelatinous, organic matter

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**FUNGUS GNATS**

- Adults 1/10” to 1/8” long, dark-colored antennae & long legs
- Look somewhat like mosquitoes
- Feed on fungi and decaying plant material

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**FUNGUS GNATS**

**NON-CHEMICAL CONTROL**
- Find & eliminate the source
  - Outdoors:
    - landscaped and/or heavily mulched areas
    - low-lying areas that remain extremely wet following heavy rainfall
    - leaking outdoor water spigot
FUNGUS GNATS

NON-CHEMICAL CONTROL
- Find & eliminate the source
  - Indoors:
    - overwatered plants
    - areas where moisture commonly found
    - crawl space

FUNGUS GNATS

FRUIT FLIES
- Adults 1/8" long, usually have red eyes
- Front portion of the body tan and the rear portion black.

Photo: Alex Wild, www.myrmecos.net
FRUIT FLIES

• Feed on fermenting material:
  ✓ over-ripened fruits & vegetables
  ✓ garbage disposals
  ✓ drains
  ✓ recycled cans/bottles
  ✓ mop heads/cleaning rags

CONTROL

○ Find and eliminate the source