

# Got Fleas?

**Pennsylvania Integrated Pest Management Program**

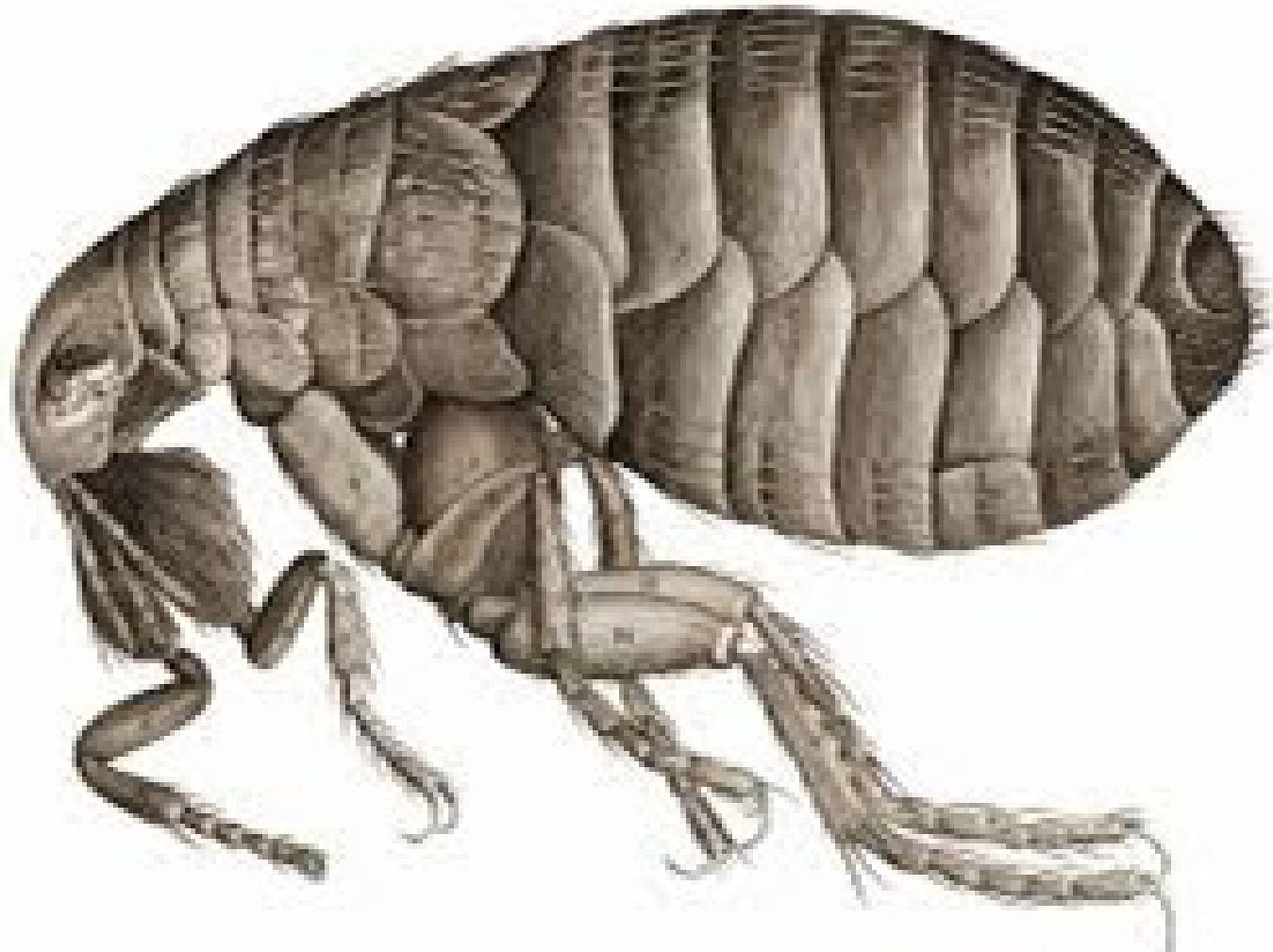
Penn State Entomology



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# Fleas

Cat Flea (*Ctenocephalides felis*)

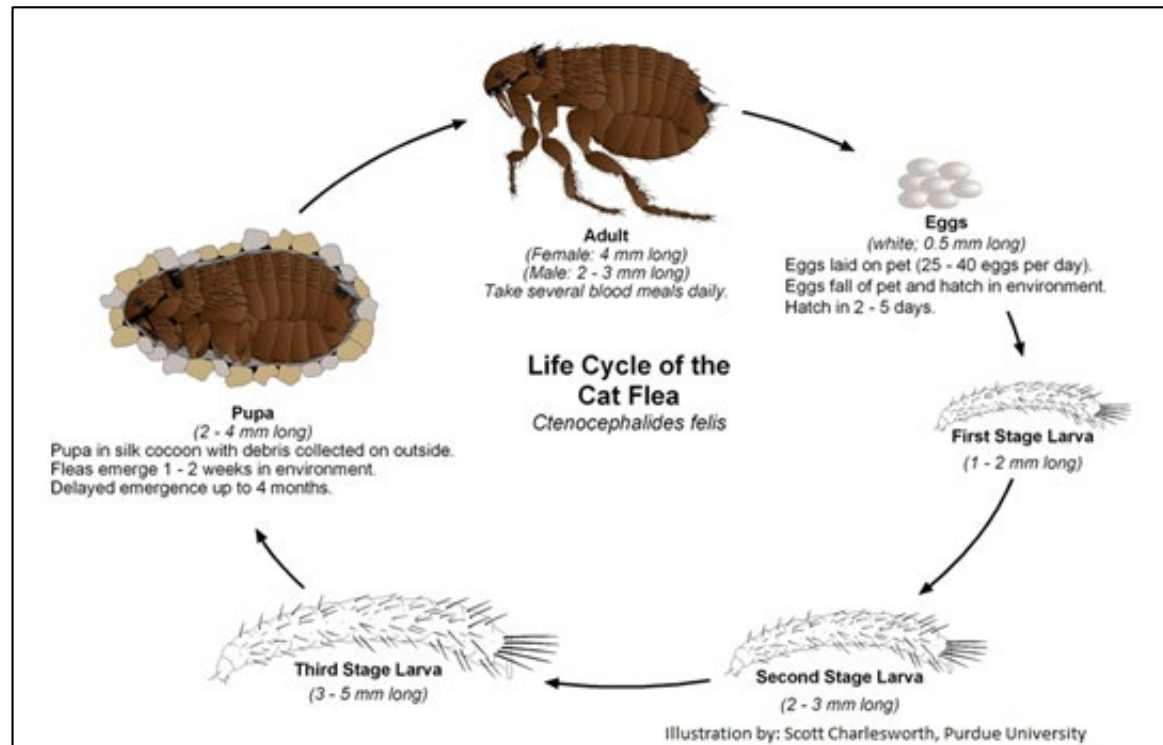
1<sup>st</sup> drawing of a flea under a microscope, Robert Hooke, 1665  
Actual size 1/8 " long

# Flea Life Cycle

- Eggs laid after each blood meal
  - 4-8 each laying; 400+ in lifetime
- Eggs hatch in 1-12 days
  - Not sticky – fall into cracks (1/64" long)

- Pupae: 4-14 days >1 year

- Dormant; resistant to pesticides
- Vibrations activate emergence (eclose)



- Larvae: 3 instars; 1-2 weeks+
  - Live in bedding, carpets, etc. (<1/4" long)
  - Eat feces of adults

# What is the Harm?

- Mosquito-like bites
  - Irritation & nuisance
  - Allergic reaction
  - Secondary infection (esp children & diabetics)
- Mental impact
- Plague – in mammals in the Southwest US; 2-4 deaths/year
- Exposure to pesticides
  - Total Release Foggers (TRF) – bombs
  - Inappropriate chemicals & treatments



Home destroyed by TRF explosion  
San Diego, 1992

# Treating for Fleas



- Do **not** spray or bomb!
- Clean bedding, etc.
- Wash animal; flea treatment
- Vacuum areas
  - Daily for 3 weeks
- Use a trigger spray, 2 components
  - Adulticide (non-pyrethroid; -thrin)
    - Fipronil
  - IGR (Insect Growth Regulator)
    - Methoprene
  - Treat stuff, not the animal!

(Jacobs 2013)

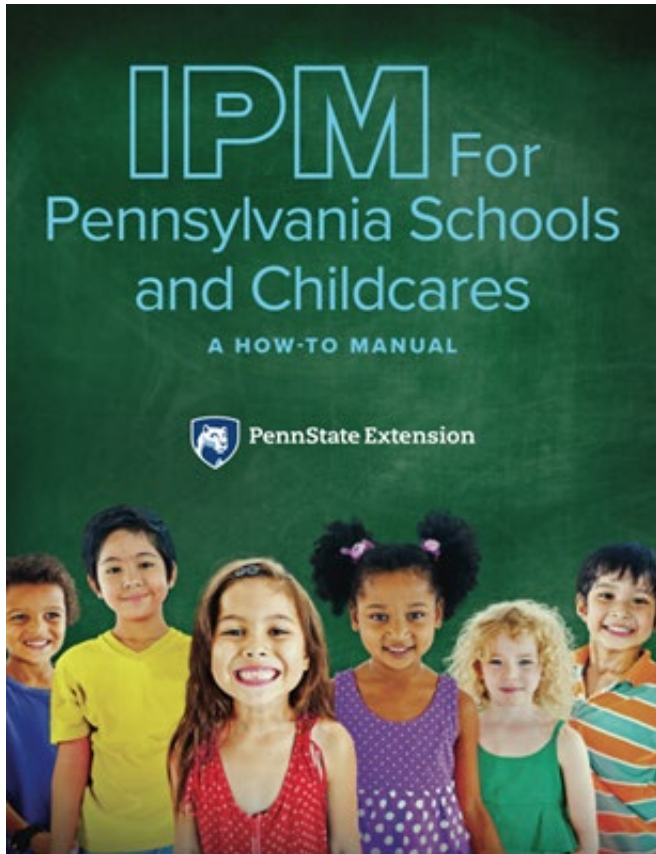


# Monitoring for Fleas

- Simple: small light & sticky trap
  - Green attracts
  - Heat
- Effective to monitor – will not control an infestation
- Useful if you have outdoor-indoor animals



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**Sources** as noted on slides and in References

# Pennsylvania Integrated Pest Management Program

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