



# Mythbusters: Mosquitoes

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# Mosquito Facts

- ▶ **Worldwide:** over 3,000 species
- ▶ **Virginia:** about 40 different species, variety of habitats.
- ▶ Mosquitoes are largely aquatic with most of their development occurring in or near stagnant water.
- ▶ Only female mosquitoes feed on or “bite” humans and other vertebrates to obtain protein necessary for egg laying.
- ▶ Mosquitoes are cold-blooded creatures and do not generally bite in temperatures below 50 F.
- ▶ Mosquitoes can live as long as 2-3 months and adults that hibernate can live as long as 6-8 months.



# True or False

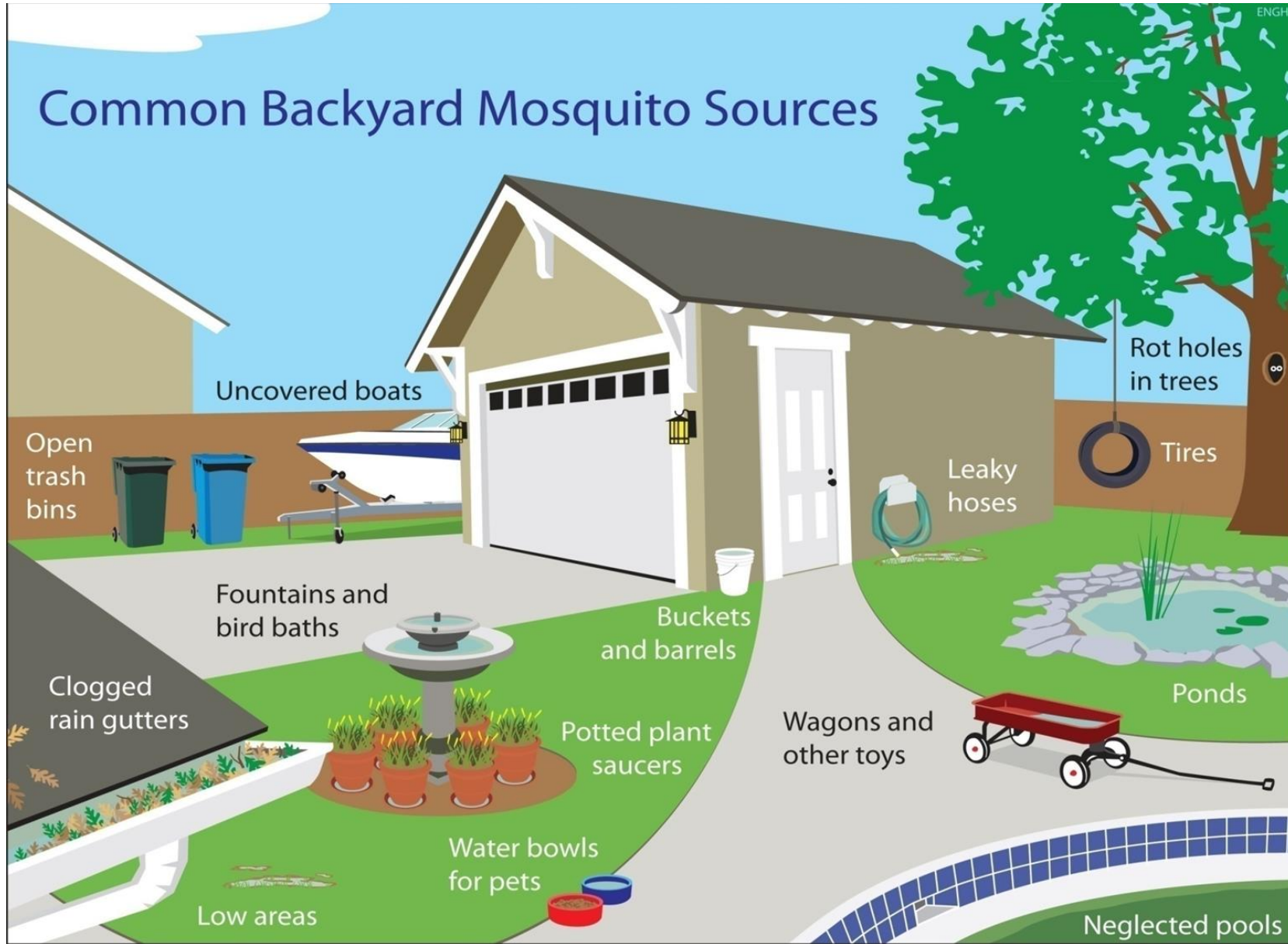
- ▶ Electric bug zappers kill mosquitoes
  - ▶ FALSE...mosquitoes are not attracted to light
- ▶ Mosquitoes are more attracted to bigger people and men
  - ▶ TRUE ...mosquitoes are attracted to warmth and carbon dioxide emissions
- ▶ Certain plants for your patio repel mosquitoes
  - ▶ FALSE ... the essential oils of some plants, when crushed, may repel some mosquitoes
- ▶ Mosquitoes don't like the wind and can't breed in moving water
  - ▶ TRUE ...mosquitoes like still waters and are weak fliers and would prefer not to fight a fan to get to you
- ▶ Zika is the only serious mosquito-borne illness you can contract in Virginia
  - ▶ FALSE .....we also have threats from Chikungunya Virus (CHIKV), West Nile virus infections (WNV), La Crosse encephalitis (LAC), Eastern equine encephalitis (EEE), St. Louis encephalitis (SLE), Malaria

# True or False

- ▶ The Asian Tiger Mosquito is the only mosquito that transmits disease in Virginia
  - ▶ FALSE. Of the 40 species in Virginia, 16 of them are known to be vectors or bridge vectors for disease
- ▶ There are “natural,” “non-chemical” means of control of mosquito larvae
  - ▶ TRUE. *Bacillus thuringiensis israelensis* is a biological control packaged in granules and cakes that can be used to treat standing water. It is lethal to mosquitoes and black flies, but safe around people, animals, aquatic creatures, and beneficial insects.
  - ▶ Fish and insects, reptiles, and amphibians eat mosquito larvae in permanent bodies of water
- ▶ Bats and Purple Martins offer good mosquito control
  - ▶ FALSE .....they do eat them but mosquitoes only account for 1-3% of the diet
- ▶ Permethrin is a safe, effective, natural pesticide to use against mosquito adults
  - ▶ Mostly False. Permethrin kills mosquitoes only IF it hits them. It is highly lethal to other insects, fish, aquatic animals. It is relatively safe for birds, mammals, humans.

- ▶ Mosquitoes are a normal part of the ecosystem. Don't be afraid of them; don't let them ruin your summer!
- ▶ Mosquitoes mature in 7-10 days and breed in **shallow, temporary** bodies of water and prefer artificial containers.
- ▶ Spraying pesticides in your yard is NOT the most effective control strategy.
- ▶ **Best way to control is to MINIMIZE BREEDING SITES.**
- ▶ **Protect Yourself!**
  - ▶ Cover bare skin in heavy mosquito infested areas
  - ▶ Exclude them from your homes
  - ▶ Use DEET, Oil of Eucalyptus, Picaridin or IR-3535 (Merck 3535) to treat bare skin

Here's  
what you  
and your  
neighbors  
need to  
know



Here's  
what  
YOU can  
do

- “Dump the Bucket”
- Work with your neighbors
- Wear protective clothing and repellants
- Discourage panic
- Protect our pollinators

What's holding water in your yard?

# Resources

- ▶ Centers for Disease Control & Prevention
  - ▶ [www.cdc.gov/westnile](http://www.cdc.gov/westnile)
- ▶ Virginia Department of Health
  - ▶ [www.vdh.virginia.gov](http://www.vdh.virginia.gov)
- ▶ Arlington Environmental Health Bureau
  - ▶ <https://health.arlingtonva.us/environmental-health/mosquito-information-center/>
- ▶ Alexandria Health Department
  - ▶ <http://www.Alexandriava.gov/health>
- ▶ Virginia Department of Agriculture and Consumer Services
  - ▶ <http://www.vdacs.virginia.gov/about-division-of-consumer-protection.shtml#pesticides> (For pesticide application information and to report pesticide misuse. Ryan Rutherford is the district inspector for Arlington, Alexandria, and Fairfax County)
- ▶ Virginia Tech Office of Emergency Management  
<http://www.emergency.vt.edu/ready/zika.html>



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Questions?



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