Mosquito Habitat Audit

Activity Guide

Lead participants on an outdoor walk. Identify and eliminate potential mosquito habitats along the way.

Introduction

Mosquitoes need a source of water to breed. Anything that collects water could become a mosquito habitat, increasing your risk of mosquito-borne diseases, like West Nile virus and Zika. By identifying and eliminating mosquito habitats, you are helping your community and increasing the safety and enjoyment of your outdoor spaces. When you monitor mosquitoes using GLOBE Observer, you are also helping scientists identify the conditions in which mosquitoes thrive so that they can help forecast disease outbreaks.

Time

15 minutes – 1 hour

Materials

- Smartphone or tablet with GLOBE Observer downloaded
- Gloves
- Habitat Tally Sheets and pens or pencils

Before the Program

Scout out potential habitats prior to your program. Considering the duration of your program, determine a route in advance to keep your group on schedule. Remember to allow time for introductions and late arrivals.

Determine how many smart devices you wish to use for the program. At least one person should have a smartphone or tablet to report observations using GLOBE Observer. You may wish to use a tablet with the group, so that everyone can see the screen. Ask volunteers to take turns so that everyone has a chance to participate. Make sure that the app is downloaded and updated before your program. If participants will be using their own devices, ensure that they will have access to the

internet or ask them to download the app prior to their arrival. Provide copies of the Habitat Tally Sheet, so that participants can keep track of the habitats that they have found. Consider printing extra copies for people to use at home.

If possible, ask visitors to wear long sleeves and insect repellant in program announcements. While larvae cannot bite people, adult mosquitoes can.

During the Program

When your visitors arrive, remind them of safety considerations.

Potential Hazards

- Adult Mosquitoes: Visitors should wear insect repellant and long sleeves, if possible.
- Contaminated Water: Visitors should not touch water with their bare hands.
- Site-Specific Hazards: Warn visitors of hazards specific to your location, such as traffic and uneven terrain.

Lead a discussion about the mosquito life cycle. Visitors may be familiar with the butterfly life cycle, which is very similar. However, unlike butterflies, mosquitoes spend the earliest stages of their lives in water (although there are some aquatic species of moths). Anything that collects water could become a mosquito habitat. Ask visitors to think of things that could become mosquito habitats.

Lead the walk, allowing visitors to point out habitats. Use GLOBE Observer to document the habitats you find. If you only have one device, allow participants to take turns documenting habitats. Optionally, distribute the Habitat Tally Sheet for participants to use.

Examples of Potential Habitats

- Can or Bottle
- Puddle
- Bird Bath
- Toy Truck
- Tire

Eliminate habitats once you are done observing. Participants should use gloves when handling trash or coming into contact with water. Explain to visitors that, by eliminating potential habitats, they are helping their community.

Regroup and ask visitors to share what they found. Were they surprised by anything? Explain that they can do this same activity at home, work, or school.

Optionally, collect a sample and bring it inside to count and identify the larvae.

Mosquito Habitat Tally Sheet

Look for places where water has collected. Anything that collects water could become a mosquito habitat, increasing your risk of mosquito-borne diseases, like malaria and Zika. By identifying and eliminating mosquito habitats, you are helping your community and increasing the safety and enjoyment of your outdoor spaces.

Still Water	
Lake	
Pond	
Ditch	
Swamp or Wetland	
Puddle, Vehicle or Animal Tracks	
Reservoir	
Bay or Ocean	
Other:	
Flowing Water	
Still Water Beside a Stream or River	
Estuary	
Other:	
Natural Container	
Plant Husk	
Animal Shell	
Tree Holes	
Plant Clumps	
Other:	

Artifical Container	
Water Storage Container	
Cement, Metal or Plastic Tank	
Well or Cistern	
Animal Trough or Water Bowl	
Jar	
Fountain or Bird Bath	
Dish or Pot	
Other:	
Discarded Item or Trash	
Can or Bottle	
Tire	
Old Car or Boat	
Trash Container	
Other:	

Did you see any mosquitoes while looking for potential habitats?

☐ Larvae ☐ Pupae ☐ Adults

Share your observations with scientists.

By combining ground observations of potential habitats with satellite observations of temperature, vegetation and precipitation, scientists can better predict when and where mosquito-borne disease outbreaks might occur.

Download GLOBE Observer and report potential mosquito habitats using the Mosquito Habitat Mapper Tool.