

## BioBlitz Tips & DIY Field Tools

### Where to look for wildlife, plants, and other organisms:

*Remember to adhere to social distancing!*

#### Around your neighborhood/home

- Look for insects and birds in neighborhood gardens.
- Lift doormats, and look under furniture or flower pots.
- Look along roadsides, where plants in disturbed habitats attract a lot of pollinators.
- Set up a bird feeder outside your window.
- Turn on an outdoor light, and hang a white sheet behind it to attract moths and night-flying insects.

#### Forests

- Roll over a log, or lift a rock. Wait for 10 seconds, and start looking for movement. Get closer and closer! Be sure to put the log or rock back how you found it.
- Check tree trunks for insects; observe with a hand lens or macro lens on a smartphone.
- Shake pinecones onto a sheet to dislodge insects and other invertebrates.
- Shake or use a stick to gently hit branches or brush to dislodge invertebrates onto a beating sheet (see details below).

#### Ponds and streams

- Look under rocks along a stream bank. Rub rocks to dislodge small aquatic invertebrates.
- Make a DIY stream-team kit (details below) to find and observe macro-invertebrates.

#### Meadows/tall grass/empty lots

- Build a sweep net and zig-zag through grass; turn the net inside-out over a pan to observe what you've found.

### DIY field tools for observing more diversity:

#### Birds: Hang a bird feeder\* outside

- Build your own seed feeder with [these ideas from Cornell Lab of Ornithology](#)
- Cut an orange in half and secure onto a surface to attract orioles, tanagers, and more colorful songbirds!

- Hang a hummingbird feeder. To make hummingbird food, boil 2 cups water and ½ cup sugar, cool, and place in a feeder. Food should be replaced every 7 days to avoid contamination and fermentation.

*\*NOTE: If you live in bear habitat, consider local restrictions including hanging feeders 10 feet (3 m) above ground and 4 feet (1.2 m) away from a structure.*

## **Invertebrates**

- Use empty food containers to scoop ground-dwelling insects, spiders, and isopods, and then observe and release!
- To find moths and other nocturnal insects, hang a sheet outside, and shine a light (incandescent, LED, UV) directly onto the sheet. Moths are especially attracted to black lights. Wait for nocturnal insects to show up! To observe what you attracted, shine a flashlight, phone light, or headlamp.
- For nocturnal ground insects, lay sheet on the ground overnight, weighting the corners. Check in the early morning to see what lingers.
- To make sweep nets, tape a pillowcase around a wire hanger and attach to a broom handle or stick. Sweep back and forth through tall grasses or brush, then turn inside out onto a white surface or basin to see what you collected.
- Make a beating sheet by extending a wire hanger inside a pillowcase. Pull tightly and tie on one side, creating a flat surface. Hold under branches or brush. Use a stick or shake branches for 30 seconds to dislodge invertebrates onto the sheet.
- To trap ground insects, dig a hole and put a cup in it. Lay sticks and leaf litter/dirt over the cup. Wait for an insect to fall into it. Be sure to release after viewing!

## **Aquatic organisms**

- Use kitchen items for stream study. Pick up rocks, dip into a pan or empty food container filled with stream water, and brush the rock bottoms to dislodge macro-invertebrates. Use a turkey baster or pipette to organize your critters in ice-cube tray compartments for observing and photographing.

## **Other vertebrates**

- Salamanders: Look under logs and rocks and near streams. Replace rocks where originally located. Our skin oils can be harmful to salamanders and frogs, so be sure not to handle.
- Frogs: Find a place near water, sit still for a while, and record their calls.
- Mammals: Use motion sensor camera traps, or look for animal signs such as tracks, bones, scat (another term for wildlife feces), and signs on tree trunks. There may be scratches on trees from bears or smaller tree-dwelling mammals, bite or chew marks from beavers or porcupines, or bare areas where deer and elk have rubbed their antlers on trees.
- Reptiles: Look around during the warmest part of the day. Reptiles may be out warming or under rocks and logs. Be sure to appreciate from a safe distance!

## **Fungi**

- Check decomposing logs, under logs, on bark, and on scat for mushrooms and more.

## **Plants**

- Photograph the whole plant and its parts from different angles. Zoom in to observe details closely.
- Watch for poison ivy, poison oak, and poison sumac!

**– Content developed by Amy Lorenz, BioBlitz educator**