

How To: Set up a Track Station



What is a Track Station?

A *track station* is an area created to record the presence and/or activity of animals in a particular location. Track stations rely on the behavioral response of animals, so it is important to consider what your target species are and what their known behavior is like before choosing the station's design and location.

Track Station Types

Track Plots

Areas prepared with a natural or artificial substrate, located somewhere frequented by wildlife, and does *not use an attractant*. These stations rely on passive animal movement. Substrates can vary and often include things like gypsum powder, chalk, plaster of paris, dirt or mud; and are placed at locations such as travel routes, dumpsters (food sources), and bases of dens or the like.

Scent Stations

Areas prepared with natural or artificial substrate that are raked or smoothed, and *include an attractant* to draw in target species.

Track Plate

A thin, artificial plate that is covered with an artificial substrate and usually used with attractants. Plates may include wood or plastic board, poster board, or aluminum metal sheets that are covered with a substrate such as soot or chalk.

Supplies

Station Set-up and Maintenance

- Substrates
 - * Artificial: chalk, gypsum powder, plaster of paris, and flour (warning: flour attracts pests).
 - * Natural: sand mixed with mineral oil, mud, loose dirt.
- Colander or strainer
- Small rake
- Meter stick or measuring tape

Track Identification

- Ruler: Consider a 90 degree ruler like this one: <http://keepingtrack.org/store>
- Field Guide
- Attractant
 - * Bait (edible)
 - * Scent Lure (edible or inedible)

Set-Up

1. **Choose a location.** Location depends on the environment and species you want to study, however there are some important things to consider. First, look at surfaces. Choose a flat, even surface (no slopes, gravel, grass or the like) to increase the likelihood animals will leave a clear track. If you cannot find a flat smooth surface, consider using a track plate. Second, pick a place where animals might be present.

Note: Where might animals be present? Consider your target species and their behavior! Look for common travel routes (what trail might an animal use to easily move through an area?); a place where you have already seen animal sign; a place near animal residence (place a station at the base of trees for tree-dwelling animals like squirrel or raccoon, or near the entrance of dens for animals like opossums or coyotes); or near a food source (especially if you do not place a bait or lure on your station) such as dumpsters.

2. **Outline station boundaries.** For Track Plots and Scent stations, use 2 meter sticks or rulers to outline the area of your track station. For Track Plates, cut out a 1 x 1 meter plate out of wood or poster board, or plastic board and lay on the ground. Place rocks on corners if the area is windy.
3. **Set substrate.** If you are using artificial substrate, pour it into a colander and sprinkle it over the designated area twice, or until the substrate is thick enough to leave a clear impression. We recommend chalk or soot if you are using a track plate station.
4. **Bait the station (optional).** Put a small amount in the center of the station. If you are using a food lure, overturn a cat food/tuna can over the can and drive a nail through the center to secure it to the ground, and poke holes in the side facing up. If you are using a scent lure, choose a rock to place in the center, and pour the lure onto the rock. Reapply scent daily, or every other day if the weather is very hot or wet.

Note: When purchasing bait or lures, pick one attractive to your study species! Minnesota Trapline Products sells a number you may find helpful: <http://www.minntrapprod.com/>. You may also choose to try out different scents and compare their effectiveness. Use non-toxic household items, such as perfume and cologne, strawberry jam, palm oil, cat nip, fish oil, etc. Cool story about jaguars and cologne: <http://blogs.scientificamerican.com/thoughtful-animal/2013/10/10/youll-never-guess-how-biologists-lure-jaguars-to-camera-traps/>

5. **Set up barriers (optional).** If there are multiple travel routes, create artificial barriers that funnel animals toward the station.

Helpful Hints

- Choose a natural surface whenever possible, animals will be suspicious of new, odd looking and feeling substrates.
- If you use bait, make sure it isn't too watery because it can get messy and ruin your substrate or tracks.
- Also be very conservative with the amount of bait that you use - a little goes a long way!
- Open, unenclosed track stations are vulnerable to falling debris and precipitation. Be aware of the canopy above your station, the weather forecast, and environmental influences such as sprinklers. You may consider covering track stations with a box to help prevent disturbance to your stations.

Track Stations

Identifying Tracks

1. Examine the toes and pads of the track - how many are there? How are they shaped? This is a great opportunity for students to record observations in science notebooks or nature journals.
2. Measure the width and height of track using a ruler. Be careful not to disturb the imprint!
3. Use a field guide to identify the species the track belongs to.

Recommended Resources

- *Mammal Tracks & Sign: A Guide to North American Species* by Mark Elbroch (Aug 1, 2003)
- *Field Guide to Animal Tracks and Scat of California* (California Natural History Guides) by Mark Elbroch, Michael Raymond Kresky and Jonah Wy Evans (May 7, 2012)
- *Peterson Field Guide to Animal Tracks: Third Edition* (Peterson Field Guides) by Olaus J. Murie, Mark Elbroch and Roger Tory Peterson (Nov 10, 2005)
- *Bird Tracks & Sign : A Guide to North American Species* by Mark Elbroch, Eleanor Marks and C. Diane Boretos (Dec 1, 2001)
- *Tracks and Sign of Insects and Other Invertebrates: A Guide to North American Species* by Noah Charney and Charley Eiseman (Apr 1, 2010)
- BioKIDS: http://www.biokids.umich.edu/guides/tracks_and_sign/