CHAPTER 5

DATA COLLECTION

Collecting Data for the Great Austin Tree Roundup

Data collection for the Tree Roundup can be broken down into two basic questions: What is it and where is it? To answer these questions, you will record **Species Observations**. As we cover the procedures for collecting species observation data, you will find it helpful to refer to the blank datasheet at the end of this chapter.

Instructions

If you did not already turn on your GPS unit, you should do so now since it will need some time to acquire satellite readings.

Observation ID: Leave blank for now. This will be entered when the database issues a number for this species observation.

Posse: Each roundup team is issued a posse name to help track group progress. Enter the name of your group in this field. Enter **Maverick** if you are not affiliated with a Posse.

Collector: The volunteer that is responsible for data entry should put his or her name in this field. If there are other volunteers in the group, their names or initials should be put in the **Notes** section.

Species Name or Code: Record the USDA Plants symbol, scientific or common name of the tree species on your datasheet (i.e. QUFU, Plateau live oak, or *Quercus fusiformus*). Refer to the website for a list of names and their codes.

Date: Record the date in the appropriate field. The date should be recorded in year/month/day format.

Time Spent: Indicate, in minutes, the total time spent making a species observation. If this is your first or last observation of the day, include the time needed to travel to or from the site.

GPS Coordinates: The GPS coordinates of your location are displayed on the center of your Waypoint screen. You will need to set up your receiver to display coordinates in Lat/Long Decimal Degrees. It is usually identified on GPS receivers as hddd.ddddd, or something along those lines. Refer to the GPS tutorial in Chapter 6 for more information about GPS coordinates.

NOTE: If a GPS receiver is not available to you, you can still get GPS Coordinates if you can fix your position on a map. When you return from the field, and login to enter

your data you will have the option to either enter the GPS coordinates from a GPS receiver or look up the coordinates by navigating to the location using Google Maps. If you use the latter approach, make sure you zoom in to the exact location where you recorded your observation.

Tree Data
The following information is also available in the iTree User's Manual. For more info please visit http://www.itreetools.org/.

Tree Condition: Tree condition is the overall health of the tree. The following ratings are used on the data sheet:

Good - trees are healthy, vigorous, without signs of insect, disease, or mechanical injury, and they require little or no corrective work. Examples include:
– Full canopy
– Minimal to no mechanical damage to trunk
– No dieback of branches over 2" diameter in the upper crown
– No suckering (root or water)
– Form is characteristic of species

Fair - trees are in average condition and vigor for the area, but may be in need of some corrective pruning or repair. They may show minor insect injury, disease, or other problems. Examples include:
– Thinning canopy
– New growth medium to low amount for species, climate and age
– Significant mechanical damage to trunk
– Insect/disease affecting tree
– Form not representative of species
– Premature fall coloring on foliage
– Needs train pruning

Poor - trees that are in a general state of decline. They may show severe mechanical, insect, or disease damage, but are not dead. Examples include:
– Tree is declining
– Visible dead branches over 2" diameter in canopy
– Significant dieback of living branches
– Presence of insect/disease that threatens the tree's health or stability
– Severe mechanical damage to trunk, usually including decay resulting from damage
– New foliage small, stunted, or minimal
– Priority pruning required (i.e., large dead wood is present that could cause damage)
– Bark may be beginning to peel

Dead - trees exhibit no signs of life. Examples include:
– No live foliage visible during species' growing season.

Planting Location: Planting location refers to where the tree is located in the landscape. Choose the option that best describes the Tree's location.

Front Yard (self explanatory)
Planting Strip (between street and sidewalk)

Cutout (tree root growth restricted on al four sides by hardscape)
Median (in median with street on either side)
Other maintained locations (ex. a tree in a city park)
Other un-maintained locations (ex. tree in a green belt)
Backyard (self explanatory)

Circumference: Although the standard for tree data collection is DBH (diameter at breast height) this survey uses a simpler technique of measuring circumference in inches that is then converted by our database to DBH for analysis. Often you will encounter special measurement situations:

1. **Tree with butt-swell or bottleneck**. Measure these trees 1.5 ft. above the end of the swell or bottleneck if the swell or bottleneck extends 3.0 ft. or more above the ground (Figure C-1).
2. **Tree with irregularities at DBH**. On trees with swellings (Figure C-2), bumps, depressions, branches (Figure C-3), etc. at DBH, diameter will be measured immediately above the irregularity at the place it ceases to affect normal stem form.
3. **Tree on slope**. Measure diameter at 4.5 ft. from the ground along the bole on the uphill side of the tree (Figure C-4).
4. **Leaning tree**. Measure diameter at 4.5 ft. from the ground along the bole. The 4.5 ft. distance is measured along the underside face of the bole (Figure C-5).
5. **Live windthrown tree**. Measure from the top of the root collar along the length to 4.5 ft. (Figure C-6).

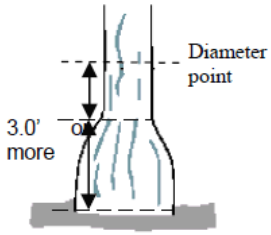

Figure C-1. Tree with swelled butt

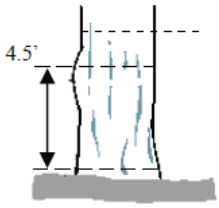

Figure C-2. Tree with swelling

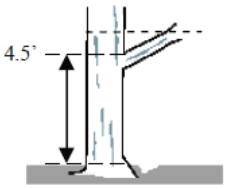

Figure C-3. Tree with branch

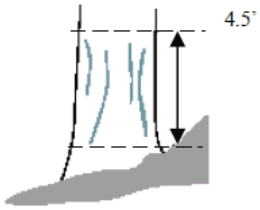

Figure C-4. Tree on a slope

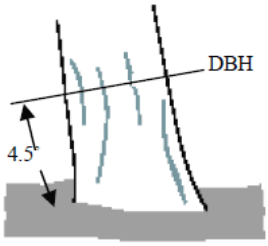

Figure C-5. Leaning tree

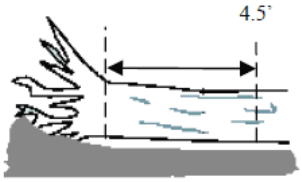

Figure C-6. Tree on the ground

Notes: If you have a name for a site that makes sense to you, use that (i.e. corner of 290 and Circle drive 4 miles west of Oak Hill). If you are not sure where you are, many

GPS units have a Point of Interest (POI) feature that can find the distance and bearing to the closest landmark feature.

Images: Use this field to write down the file names generated by your camera for the **close up** images associated with this species observation. It is important to capture this information in the field so that the right image is associated with the right observation when you enter your data.

Consent: If you are surveying privately owned property, use the consent form to obtain permission from the landowner or manager.

Frequently Asked Question

Can I record more than one species per observation?
The answer is no. If you are working in an area with multiple trees, you should fill out a datasheet and photograph each tree in that area. Once you get the hang of using the **Datasheet for a Single Observation**, you might try using the **Datasheet for Multiple Observations** to collect data on multiple trees on a single sheet of paper.

When your field day is complete

- Make sure you turn off your cameras and GPS units to save batteries. Store them in a safe place in your vehicle to protect them from damage.
- Before leaving the site, make sure to clean your socks and boots to make sure that you are not transporting invasive plant species seeds with you. Do this between sites as well.
- Put your datasheets in a safe place and enter your data as soon as possible into the web-based data entry forms as www.texasinvasives.org

Congratulations! Your efforts will go a long way towards assisting managers and scientists analyzing and planning our urban forest.

AUSTIN TREE ROUNDUP DATASHEET

Observation ID: _____ (leave blank until assigned by system during data entry)

Posse: _____(your group name)

Collector: _____ (your name)

Species Name or Code: _____ (e.g. AIAL or *Ailanthus altissima*)

Date: _____ (use the format yyyy/mm/dd)

Time Spent* (circle one): 5 15 30 45 60 90 120 180 240 360

*Total time spent on an observation in minutes. If first or last observation for day, include time needed to travel to or from site.

GPS Coordinates (in decimal degrees)

Latitude: _____ (e.g. 32.74452, positve indicates Northern hemisphere)

Longitude: **–**_____ (e.g. -097.67281, negative indicates Western longitude)

Tree Condition (check one):	**Planting Location** (check one):
_____Good	_____Front Yard
_____Fair	_____Planting Strip (between street and sidewalk)
_____Poor	_____Cutout (tree root growth restricted by hardscape)
_____Dead	_____Median (in median with street on either side)
	_____Other maintained locations
	_____Other un-maintained locations
	_____Backyard

Circumference _____ (in inches at Breast Height)

Notes: Include a description of the location plus any other notes.

Images - For verification purposes, take several close up digital images of the species and record the file names of the images below so you can refer to them during image upload.

Consent: I (We), the undersigned, give consent to volunteers from the Great Austin Tree Roundup to conduct surveys of trees on property that we own or manage and to use site specific information in the preparation of reports including sharing data and publication of survey results on the www.austintreesurvey.org website.

Landowner or Authorized Agent: _____Date: _____