

Fire Fuel Protocol: Center Plot Measurements

Field Guide

Task

To describe the general characteristics of the Fire Fuel Site by performing the [Land Cover Sample Site](#) and [Biometry](#) protocols in the *Biosphere Investigation* as well as measuring slope, aspect, and average stand and crown heights.

What You Need

- [Fire Fuel Center Plot Data Sheet](#)
- [GPS Data Sheet](#)
- [The Center Plot Fire Fuel Guide](#)
- [MUC Field Guide](#) or [MUC Glossary of Terms](#)
- Data Sheets and Field Guides for the [Land Cover Sample Site](#) and [Biometry](#) protocols in the *Biosphere Investigation*
- GPS receiver
- Wooden stakes or flags
- Flexible tape measure, at least 30 meters
- Compass
- Clinometer
- Tree guides
- Meter stick
- Clipboard
- Pencils or pens
- Colorful flagging (optional)
- Camera

In the Field

1. Do the *Land Cover Sample Site* and *Biometry* Protocols in the *Biosphere Investigation*. Identify latitude, longitude and elevation using a GPS, take photos and identify the MUC class. Do the full set of biometry measurements: ground and canopy cover, tree and shrub heights, dominant and codominant tree and shrub species identification.
2. Measure the aspect of the site. Stand perpendicular to the slope of the site with your eyes facing uphill. Measure the direction with the compass (1-360 degrees). Be sure to enter the true not magnetic directions. An aspect value of zero is entered for flat stands with no slope. 360 degrees is used for true north.
3. Work with another student who is approximately your same height. Measure the angle of the slope of the site by aiming your clinometer downhill 25 meters away. Look through the straw of the clinometer and locate the eyes of the other student. Record the angle on the *Fire Fuel Center Plot Data Sheet*. If you are looking downhill, turn the clinometer around, locate the eyes of the other student and record angle. Then, look upslope and repeat the procedure. Record second slope value.
4. Estimate the height of the trees or shrubs in the dominant stratum greater than 2 meters. To be considered a tree or shrub stratum, there needs to be at least 10% canopy cover.
5. Measure the heights of the base of the crowns of trees or shrubs in the lowest stratum. To be considered a tree or shrub stratum, there needs to be at least 10% canopy cover. The trees or shrubs must be greater than 2 meters tall. Calculate the average height.
6. Record any comments that may be relevant to the fuels data.