Tetlin Forest Inventory & Analysis (FIA) plot protocol summary

1. Locate and monument the plot
    a. Set GPS to following settings
    b. Follow FIA protocols to locate the plot center, waypoint on the GPS and monument with a fiberglass pin (prefix landing zone names with a "PC", followed by the plot number. For example, the plot center for plot 4388 would be named "PC4388")
    c. Flag 24 foot radius circle around the plot center in 4 cardinal directions
    d. Take photos in 4 cardinal directions using the photo sheets marked with a sharpie out at 120 feet
    e. Be careful not to trample right around the plot center or on the E-W line running through plot center
2. After the helicopter has been gone for about 5 minutes, conduct a 10 minute point count following ALMS protocols **2.5m N of the plot center pin**
3. Collect sweepnet samples for inverts
    a. You will be collecting two separate samples from the plot, both within the 24 foot radius flagged plot: one on the E half, one on the W half.
    b. Sweep the entire area, including all vegetation and substrates, from the ground up about 2m high. Sweep for up to 5 minutes, no longer. Use your hand to gently scoop all arthropods from the net into a 250mL Nalgene filled with 99% ethanol or antifreeze. Ensure that enough liquid is added to cover the entire sample.
    c. Label the outside of the bottle with the point ID date and East or West.
4. Sample for earthworms
    a. Place the 0.25m quadrat ~25m South of the plot center **outside of the flagged 24m radius plot**
    b. Remove surface organic material and earthworms by hand within the quadrat
    c. Slowly pour ~ a third of liquid mustard solution (~1/3c yellow mustard seed powder per 4L [~1 gallon] of water) in the quadrat, allowing it to soak in as much as possible. Wait 2 minutes.
    d. If worms do not surface, pour another third and wait again. Continue until the gallon is used up. Total sample time should be about 5-10 minutes.
    e. Extract any earthworms with your fingers or a forceps
    f. Store earthworms in a bottle or whirlpak with ethanol and label as above for arthropods
5. Collect 2L of water from any easily-accessible lake, if available
    a. Rinse empty bottle with lake water
    b. Scoop water from the shore into the 2L Nalgene
    c. Take a GPS point, label the way point "edna-location", where location is the waterbody name or plot ID.
    d. Take photos
    e. Make notes about the lake (vegetation surrounding, etc.)
    f. Label the outside of the bottle with GPS coordinates, date, and lake name (if known)

6. Waypoint and take photos of the landing zone (name landing zone names with an “LZ”, followed by the plot number. For example, the landing zone for plot 4388 would be named “LZ4388”)
7. Take aerial photo of plot center as you leave the plot