

Deer and Moose Pellet Group Count Field Protocol

Rationale: The objective for these deer pellet surveys is to provide an independent estimate of deer density and to complement deer browse survey data, and maybe come up with some moose density estimates. Our goal for 2018 will be to survey approximately 8-12 sites over a representative sample of huntable lands in wildlife management zones 1-9. By focusing on huntable lands (both public and private) we can use the estimates to evaluate our harvest-based density estimates.

Timing: Surveys are to be conducted after complete snowmelt and prior to herbaceous and shrub leaf-out (typically late March through mid-May depending upon site conditions). Surveys can be conducted regardless of current or recent weather conditions (except snow), as precipitation and temperature should not impact the presence or detection of pellet groups.

Grids: Each survey grid is comprised of 4 transects running north to south (with the exception of a few grids running west to east) with each transect being 1 mile in length. Transects, generated in ArcGIS and transferred to hand-held GPS units, are placed 366 meters (1200 feet) apart.

Equipment needed:

GPS unit (make sure you load the transects and points prior to heading out) and extra batteries (AA), compass, datasheets and printed map of transects, clip board, writing utensils (pencil works best on the write-in-the-rain paper), and a small tape measure or pre-measured 4ft string or pole

Prior to conducting a survey: Determine the number of steps it takes for YOU to travel 100 ft. in a typical forest with your typical stride, using a pre-measured rope, long tape measure, or rangefinder.

Methods: A single observer, using a GPS unit, will navigate to the starting point of the first transect. Using a compass, the observer will take a compass bearing (N or S depending on your direction of travel) along the transect line and walk your predetermined number of paces or steps to 30.5 meters (100 feet) to establish the first plot. As you reach your last step to the 100ft and before looking down at the ground, drop your GPS unit to establish the center of the plot (this will make it more random). The observer will count deer and/or moose pellet groups located within a 1.2m (4 feet) radius of the plot center using a tape measure or pre-measured string or pole to determine the edge of the plot. A “**pellet group**” is defined as a group of 10 or more pellets and in order to be counted, at least half of a pellet group must be within the plot boundary. Using the datasheet, the observer should record the number of pellet groups counted at each plot (1 or 2 groups are typically the maximum seen). Use pellet size, color, weathering, etc. to determine if more than one pellet group is present. If no pellet groups are observed at a plot, the observer will record “0” for that plot. Additionally, the observer will keep an accurate record of the total number of plots surveyed per transect. Use the GPS occasionally to make sure your track is on the transect line. You should be at plot number 26 when you reach the middle point (e.g., 8AM on the next page). Approximately 52 plots per transect should be surveyed.

In the event that the observer should encounter an obstacle such as a water, cliff edge, or other unrepresentative habitat type such as a road, major trail, or rock outcropping, while pacing out along the transect, the observer should stop counting paces on encountering the obstacle, go around until representative habitat on the transect is reached, and continue counting paces where you left off prior to the obstacle again until the 100th pace is reached. If such obstacles prohibit the observer from surveying a total of 52 plots per transect, then the observer may extend the transect (by continuing along the same compass bearing) until 52 plots have been completed (please make a note of this on the datasheet), or the observer may end the survey effort and record “NA” on the datasheet for the remaining plots not surveyed. Also, make a note on the datasheet if the area surveyed appears to be closed to hunting.

All data should be emailed to David Stainbrook and all filled datasheets returned.

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Example of an efficient way to survey a grid with two observers using GRID 8:

