

ENVS 3001 Environmental Science Field School - Field Research Project

----- EXERPT – NOT THE FULL ASSIGNMENT -----

Before you start this field work, you should be aware of any possible risks associated with working in this area, you should have read the assigned background readings, and will have listened to a lecture by the General Manager of the Medway Community Forest Co-op. You'll need to work as a team to get everything done efficiently and to a high standard.

Forest field work check list

- Data sheet 1 – Site description
- Data sheet 2 – Species list and % cover
- Samples collected of unknown species
- Photographs or sketch taken for all known species
- Data sheet 3 – prism sweep, basal area, DBH, height and age
- Data sheet 4 – Seedling transect

Vegetation plots

Over the next two days, you are going to characterize three different forest stands:

Stand 1 – (1 U) Undisturbed

Stand 2 – (2 C) Clearcut

Stand 3 – (3 FC) Fire and Clearcut

The objective of the study is to investigate the effects that wildfire has on the regeneration of a clear-cut forest stand in this region of the Acadian Forest.

You will do this in groups of four to five students. As a group, you will conduct a vegetation survey using a 10 m x 10 m quadrat sampling method followed by a prism sweep. At Stand 3 (FC), you will also conduct a transect study of young planted seedlings. You have been provided with a range of tools and data sheets to use for this work. The guidelines below have been modeled after the “Field Manual for Describing Terrestrial Ecosystems” created by the B.C. Ministry of Forests and Range, and “Field Manual for Forest Ecosystem Classification in Nova Scotia” created by the Nova Scotia Department of Lands and Forests.

Getting started in the field and filling out Data Sheet 1:

1. Find Data Sheet 1
2. Record the project name (ENVS 3001 Field Report), location, plot ID (1U; 2C, 3FC) surveyor(s) name(s), today's date (M/D/Year), forest ecozone and ecodistrict. Copy the plot ID to other forms.
3. Fill in the directions to the site. For this you should describe the location of the plot at a regional and local scale relative to natural features such as mountains or bodies of water and permanent structures such as kilometre signs on main roads. If none of these exist, then you could use GPS locations at the turning points off the main road (Highwa 8) and the point where you left the forestry road and entered

the forest. A sketch of the area may be especially useful in this case. You will be asked to draw a sketch in a later step so you don't have to do it right now. Your directions should allow other users to locate the general position of the plot on a map and assist field workers in relocating the plot in the field if required. Select points of reference that are unlikely to change and are named on maps or are otherwise easily identified. Include compass bearings and distances (measured or estimated), where possible. More detailed access information may be recorded under the "Notes."

4. Establish the plot centre, mark it with a stick and flagging tape, and record its georeference using a GPS, record UTM zone, easting and northing, elevation (meters), and GPS accuracy in metres on the data sheet 1.
5. Establish the location of a 10 m x 10 m plot boundaries and use your flagging tape to mark the corners (and edges if you feel it necessary to clearly see the boundaries of your plot. Start at one corner of the plot, and run four continuous 10 m lines (using your 30 or 50 m measuring tapes). Use your compass and turn 90° at each corner. If the plot does not close correctly (i.e. is off by >0.5 m), start again from the first corner.

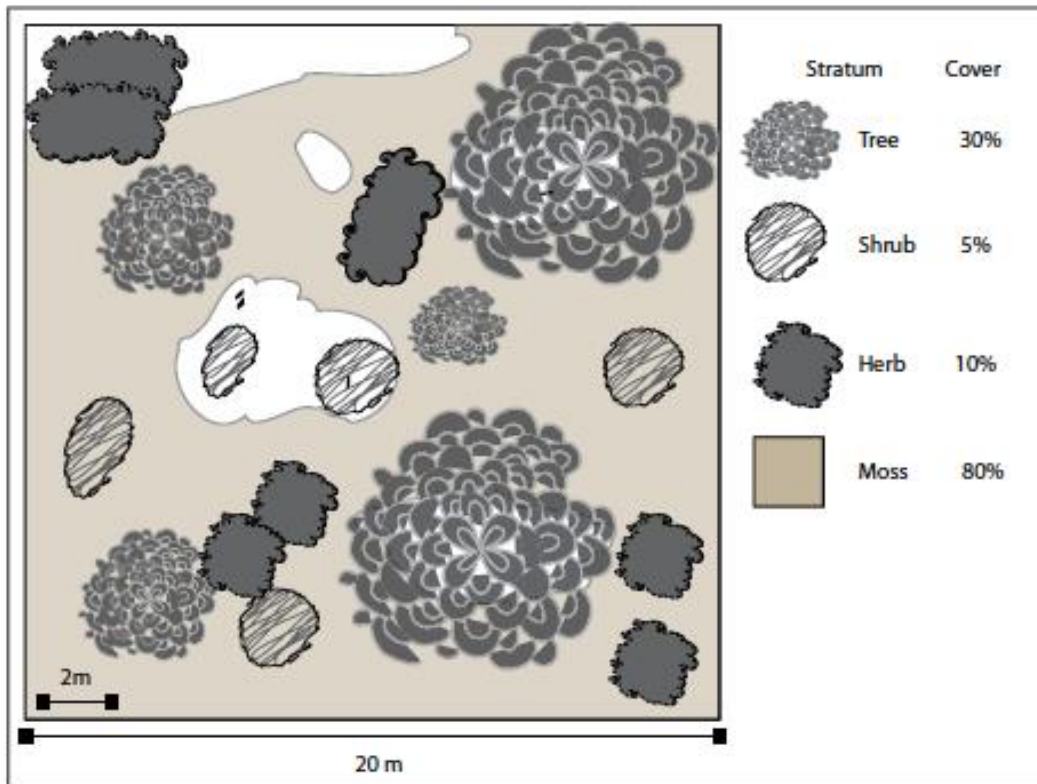


Figure 1.5 An Example of percent coverages in a plot, viewed from above. Used to estimate percent cover.