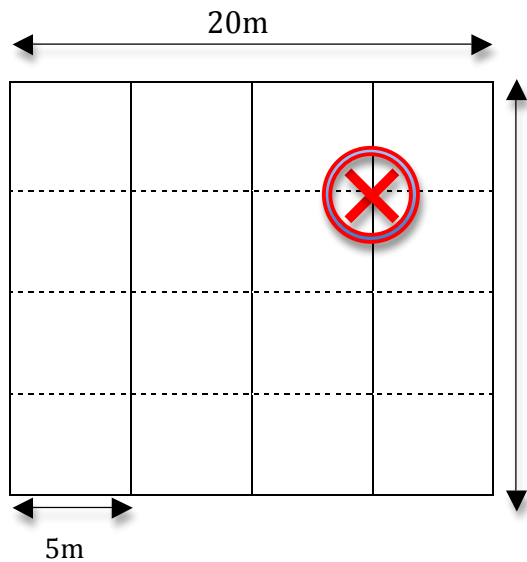


Sampling Procedure for Pacific Spirit Park Forest Plots



Equipment provided:

- DBH Tape
- 1.25m string
- Bryophyte data collection sheets (9)
- Paper bags for bryophyte collections
- Three 25cm x 25cm quadrats
- Marker
- Notebook for habitat or other observations

1. In your groups of five students (three 321 students + two 406 students), establish a 20m x 20m plot and four 5m x 20m sectors. BIOL 406 students have already practiced this. It entails setting up the perimeter first (20m x 20m square) then three 20m transect lines within the perimeter spaced 5 m apart to give four 5m x 20m sectors (see diagram above). Biology 406 students will perform their vegetation analyses, and Biology 321 students will collect samples as indicated below.
2. In your groups of three, you will sample every 5 meters along each transect line (a total of 9 transect points). Use *a, b, c,...* through *i*. to label each point as you proceed along the transects.
3. At each transect point (see "X" above) establish a circular sampling area, **radius 1.25m**, using the string from your equipment bag.
4. Within each sampling area locate **one** of each of the following substrates:
 - I. **Decaying log/branches (horizontal)**,
 - II. **Tree base and shrubs (living)**
 - III. **Recently fallen trees/branches**
 - IV. **(Large) rock**
 - V. **Decaying stump (vertical)**
 - VI. **Ground**

⇒ If any of the substrates are not within the sample area, simply mark N/A on your bryophyte data collection sheet.
5. On each substrate type, place a 25cm x 25cm quadrat on the area of highest bryophyte diversity. If you do not know what the bryophyte is (**to the species level**), transfer a suitable amount to a paper bag for later identification.

⇒ Make sure you **label each paper bag** with **plot number**, **transect point**, and **substrate type!**
Place all bags from one transect point into a **plastic bag** and label with **plot number** and **transect point**
6. For tree bases, identify bryophytes growing on the **full circumference** of the base, up to 25cm (use quadrat to measure). Include the tree species, and DBH (diameter at breast height) using the DBH tape.
7. Once you've completed your analysis for the first transect point, move 5m along the transect line and repeat. There are a total of **NINE** sampling points, so use your time wisely.