# How to Establish a Belt Transect

A transect is a delineated strip of territory within which students will collect data. Typically, a transect is a straight line. A belt transect is a rectangular area, centered on this line. A transect can be a permanent sampling plot that can be revisited in future years and provide long term data to monitor habitat conditions and species.

Locate transects, if possible, with one end along a road (pollution source) and the other end remote from the road. The transects should be large enough to contain several suitable lichen-festooned trees and downed branches, probably about 10-15m wide and 25- 50 m long. Ideally, each group of 3-4 students will have their own transect. The student transects can be parallel to each other (but not directly abutting) to make it easier for the teacher to assist students. If no forest is available, locate the transects in the school yard or other area that has lichen present. It is surprising where you can find lichen!

Procedure

1. Use a compass to establish the centerline of the transect, ideally at right angles to the edge of the road or field. The teacher will tell you what bearing to use.
    - Your bearing: _____

2. Stand at your point of origin and mark it with a flag. Sight on the most distant tree from the point of origin along your bearing and guide a student to that tree to flag it. Write your group's name on the flags.

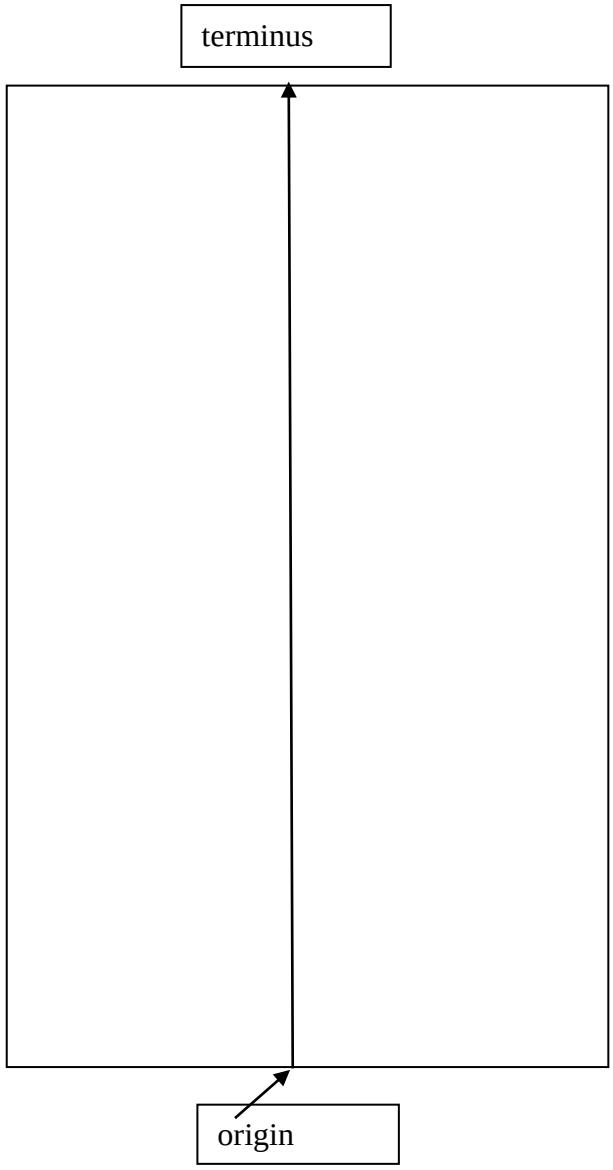
3. Send a student out from the point of origin with a distance tape. Depending on the density of trees of a suitable size, the transect could be 25 to 50 meters long. If the most distant tree sited is less than the desired distance away (ex. 50 m), stand at the tree and use the same compass bearing to site on the next distant tree until you reach 50 m, the terminus. Now you have established the center line of your transect.

4. To identify the four corners of the transect, stand at the flag at the terminus of the centerline, turn the compass housing 90 deg. from your centerline bearing. On that new bearing, send a student out with a tape to measure a distance of 7.5m from the centerline. Flag this point. From the centerline, turn your compass 90 degrees in the other direction and repeat the measurement and flag the other corner.

5. Go back to the flag at your point of origin and repeat step 4 to establish the other two corners.

6. You now should have your rectangular belt transect flagged. If the vegetation is dense and you cannot readily see all the flags, use your compass to place intermediate flags along the belt transect boundaries.

7. Students should draw their belt transect with bearings and distances. Later they should add the tree and branch locations that they inventoried.




Lessons developed and field tested by:
Sarah Thorne, Science Teacher, Prospect Mountain High School, Alton, NH
Funded by: White Mountain Interpretive Association, Kiwanis International,
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