Pacing Exercise

We need to calculate distances for a variety of reasons while monitoring plant populations:

- Drawing maps and writing directions to the population. For example, "Plant population begins 12 meters south of the southwest corner of the long plank bridge."
- Estimating how large the population is from one end to the other. This is done by taking two distance measurements, one across the length and the other across the width.

Using a measuring tape to get an exact distance measurement is the preferred method; however, sometimes this option is unavailable because:

- Measuring tape is not available
- Distance to measure is so long that it would be too time-consuming or cumbersome
- Measuring distance along a windy path is very difficult with a tape

Pacing is a back-up method of calculating distances, although it's not ideal:

- Potential error mainly due to inconsistency of step size
- Different walking speeds can make one's pace greater/smaller
- We all walk differently on different days
- Terrain affects how big our steps are

Ways to minimize error:

- Set a personal, standard step size, e.g. 1 "step" = 0.9 meters. Some people differentiate between a pace and a step, where a pace is equal to two steps. For the purposes of measuring distance, it doesn't matter whether you measure steps or paces as long as you are consistent.
- Use the same step every time - you'll get used to your own step length

PACING PROTOCOLS

How to calculate the length of each step:

- Take the # of steps it took to walk the known distance (let's say 40 meters)
- Divide # of known meters by the number of your steps to get # of meters/step (i.e. 40 meters/36 steps =0.9 meters per step)

How to determine an unknown distance:

- Walk the distance, counting the number of steps it takes to get from one end to the other.
- Multiply the # of steps by the # of meters/step (e.g., it takes you 30 steps to the mark, so 30 steps x 0.9 meters/step = 27 meters. The distance you walked was 27 meters.)