Seed Set

* Calycadenia
  + If seed heads are intact, count number of seeds per seed head and record in notebook
  + If seed heads are not intact, count total number of seeds and divide by the total number of seed heads recorded on the envelope (can also do a combination of these two things, if 5 are intact, count those individuals, then if the other 3 arent, take the average) be sure to record in the notes when you are taking the average, and how many individuals you are taking the average of
  + Each line should correspond to the average of one individual, so if the average seed set of 5 individuals is 2.5, there should be 5 lines in the datasheet with 2.5 recorded for each of them
* Hemizonia
  + Count total number of seeds and divide by the total number of seed heads recorded on the envelope (can also do a combination of these two things, if 5 are intact, count those individuals, then if the other 3 arent, take the average) be sure to record in the notes when you are taking the average
  + Each line should correspond to the average of one individual, so if the average seed set of 5 individuals is 2.5, there should be 5 lines in the datasheet with 2.5 recorded for each of them
* Lasthenia
  + These two species are impossible to collect seed head without ensuring that none have dispersed, therefore we take pictures of the seedhead and calculate an estimate of the number of seeds that were attached based on the number of divets in the head
  + Dissecting scope
    - May have to spend some time adjusting your phone to fit in the piece
    - Turn on the light on the dissecting scope with switch on the box behind it; take off the red cap on the light. You may not need this but if you do turn it on, be sure to turn it off at the end of the day
    - Take out one envelope, empty contents into weigh boat and count how many seed heads there are and in the data notebook, record this by writing a separate line for each individual (number 1 through however many there are)
    - Take a picture of the envelope (for identification of the picture later)
    - Hold stem by tweezers
    - Position it under the scope and snap a photo of one side
    - Flip specimen over and take a picture of the other side
    - If you accidentally lose it, just right “LOST” in the notes section of that particular individual (if you lose the 3rd individual, of an envelope, write lost next to the labeled as 3 in the datasheet, then later at the computer, you will have individuals 1, 2, 4, and 5 (if there are 5 individuals) but 3 will be missing
    - Sometimes the seedhead is too squished to get it to lay flat, just record that it’s too squished and move on (follow same protocol above for the lost individual in terms of numbering)
    - Be sure to delete duplicates if you take more than one photo of the seed head
    - When all of the seedheads for one envelope are finished, put them back in the envelope and place them in the done folder and begin a new envelope
    - When you want to move on, mail all the photos to yourself, this should preserve the order in which the photos were taken
    - Rename photos “Date\_Plot\_Sp\_#” and name envelope “Date\_Plot\_Sp\_env” and place into correct species/date folder
    - When you move on to a new date, you’ll have to create a new folder for that date
  + Open ImageJ (or download it again…)
    - File -> Open -> choose the picture
    - Go to multi-points button
    - Magnify with + key if needed
    - Record last number in data notebook
    - Resave file and open next image
* Grass Species
  + There are multiple grass species, but each envelope should be labeled with the specie
  + The seeds fall off the individual very quickly, you’ll just have to count all the seeds in the envelope, and divide by the number of individuals (should always be 5 unless otherwise indicated on the envelope) so that we have an average seed set per grass species per plot (similar to HECO)
* Enter seed set data
  + Log on to either computer
  + File path: my computer//plant sciences shared drive (S)//FacultyData//Latimer//LatimerSHARED//Marina//Watering\_exp//seed-set-2017.xlsx