Overall:

- No longer any complete plants listed as “error”

- now combining all other error issues into a single spreadsheet and this file

COER, EPMI, LEES, PELA, PILI

* ALL CORRECT; checked everything other than final negative investment check

BAER

* cone\_green\_01 not correctly progressing to cone\_brown or cone\_brown\_DEF because 6 censuses between stages (BAER\_005, 803, 806, 902, 905, 907)
* Minor issues with one cone – see error spreadsheet

BOLE

* need new weights for Late\_finished\_flower (Lizzy to fix)
* Finished\_flower has 2044 too many (see Error\_summary file). Checked repro spreadsheet and #2140 is correct for total number that “pass through”. I’m at a loss to explain this.
* Otherwise ALL CORRECT

GRBU

* Finished\_flower\_stigma has negative “lost” counts always – no explanation
* CHECKING STILL IN PROGRESS

GRSP

* CHECKING STILL IN PROGRESS

HATE

* CHECKING STILL IN PROGRESS

HEPU

* With HEPU there are many individuals where Fin\_Dev calyx\_fruit does not add up to the sum of Fin\_Dev for (fruit\_young + fruit\_large\_immature + fruit\_mature). In most of these cases it is a “survival of the fittest” problem, where some of the previous censuses fruit\_young + fruit\_large\_immature have shed, and there are new fruit\_young + fruit\_large\_immature (+ calyx\_fruit) that have developed. However the exact development pattern means that the program assumes it is the previous ones developing further. The problem is that it knows the calyx\_fruit are new, so the number of calyx\_fruit exceeds the number of fruit\_young + fruit\_large\_immature, the latter of which are incorrect. I think a possible fix would be to use fruit\_young02, fruit\_large\_immature02, fruit\_large\_immature03 to clarify progression. Is this a big mess for you to implement on the plant map? (Given that I’m not 100% sure this is the fix)
* There is also a problem, shown on the excel error summary, that for HEPU001,002,003 and 004, a number of the bits that are on the plant at the beginning of the experiment are not correctly being acknowledged as “errors”. I assume this means these individuals have too high a total investment number.

PEPU

* Remove “bud\_aborted” from plant map; never used
* Otherwise ALL CORRECT

PHPH

* The number of flower petals does not equal the sum of (flower\_stigma + finished\_flower\_stigma + fruit\_just\_starting + fruit\_young + fruit\_large\_immature + fruit\_aborted + seed\_pod). It does equal if seed + seed\_aborted is substituted for seed pod. I think this is because the plant map is following backwards from the seed/aborted seed, rather than the seed pod. Since seed pods have variable seed number (0,1,2), but map assumes there are always 2, it makes the assumption that there are some fruit\_young and fruit\_large\_immature that have been "lost" when in reality they have turned into empty seed pods. However, if you consider "seed pod" the end of the developmental trajectory, then the numbers should add up. I'm guessing this is a change to the plant map.
* Otherwise ALL CORRECT

PUTU

* Still an error with too many “Finished\_flower\_stigma” ended up as a “Fin\_Dev” part. I’ve gone through many of the individuals and can’t find any mistakes in the repro spreadsheet but also can’t find any pattern that would explain the error. This may be the same sort of error as arises with PHPH. With both species, “seed pod” is the numerically accurate final development of the stigma 🡪 fruit progression, not “seed”

Mistakes are in:

(parts are 2x numbers in repro spreadsheet)

|  |  |  |  |
| --- | --- | --- | --- |
| Individual | petals | derived parts | diff |
| PUTU\_004 | 186 | 236 | -50 |
| PUTU\_005 | 136 | 168 | -32 |
| PUTU\_805 | 238 | 264 | -26 |
| PUTU\_003 | 106 | 116 | -10 |
| PUTU\_908 | 40 | 46 | -6 |
| PUTU\_902 | 296 | 300 | -4 |
| PUTU\_903 | 166 | 170 | -4 |
| PUTU\_403 | 94 | 96 | -2 |
| PUTU\_405 | 186 | 188 | -2 |
| PUTU\_804 | 30 | 32 | -2 |
| PUTU\_906 | 86 | 88 | -2 |