NEW: Realized that after you changed the HEPU map, I hadn’t checked for negative investment. Glad I did, because going from “finished\_flower” to “fruit\_young\_aborting” have negative investment of -0.89. This clued me into a mistake in the map. “fruit\_young\_aborting” is an alternative to “fruit\_young”. Both should still have a “calyx\_fruit” as a second part, but I think in the map, individuals that go to “fruit\_young\_aborting” no longer have some of their weight going into “calyx\_fruit”. Similarly, “flower\_calyx” and “flower\_calyx\_aborting” are two possibilities, but both come paired with “flower\_petals”.

Am now rechecking negative investment for all species, because I think some have changed a lot since I last looked.

Quite a few species have minor negative investments, but all are true cases of having a weighed part that is lighter than average. So in these cases, it seems completely fair to have negative investment and I’m going to leave them.

EPMI

EPMI – 1 plant now an “error”  
 Fixed

Lizzy 20141209 – looks good to me as well

BAER

* BAER plant map change 🡪 cone\_aborted should come off cone\_young, not cone\_green – right now the right cones aren’t being matched up across stages, causing some of the big negative investment problems. And I’ve checked and all cone\_aborted never progress through cone\_green, but instead go straight from cone\_young to aborted

Fixed, but couldn’t test due to lack of data in reproduction spreadsheet.

Lizzy 20141209 – all works, no negative investment remains

BOLE

* There is a problem with the flow of parts leaving “finished\_flower”.

EHW 03.12.14: I think I mischaracterized the problem last week – although it is still there. The number of fin dev parts for “finished\_flower” is larger than the number of parts going “to” minus the number going “from”. Both the to and from are correct – I checked that manually. Wondering if some numbers being multiplied by 4 that shouldn’t be (or vice versa). The same is true for flower petals/late\_flower\_petals now that the new part is included. So this error has something to do with development along the side branches, where somehow the fin dev numbers are much too high for the intermediate stage. Hope that helps. I’ve pasted numbers for all the individuals into the file titled “BOLE trouble”. Playing with the numbers, there is no single correction that works for all – but of course there could be other errors that I can’t track yet – but for most it appears that the “fin dev” value for petals, assumes that all investment to petals has been added twice and then the investment from petals to late\_petals has been subtracted off just once. But this is only true for plants where there were late\_petals – if there were no late petals, then the “fin dev” value to petals is correct. And similarly, if I deleted the “late\_petals” column from the repro file it runs correctly. Hope this provides some help for you. I’m guessing something similar is going on with the finished flower to late finished flower progression

Fixed. Not tested fully due to mistakes in the repo spread sheet.

Lizzy 20141209 – all works

HEPU

* Another odd thing, in HEPU, the count of “fruit\_aborted” is always 12, but there are only 6 of them. And nothing in the multiplier table should cause this count to be doubles. Each individual. This problem still exists. In multiplier table always “1” for HEPU. Is it possible that there are two links to “fruit\_aborted” in the plant map? Maybe the term appears twice in some list, because we moved where it should fit into the plant map and it was never deleted from the previous location?

I am stuck due to the fact that in the reproduction spreadsheet I have there is not a single HEPU with fruit aborted.

Lizzy 20141209 – Confused by what was wrong with reproduction spreadsheet, but I am still getting the same answer.

To do priorities:

1. Small error fixes done
2. The 3-year olds done, age coding used from Kurrungai. Once again can’t test it fully, lack of data. Age should be matched correctly in the repo spreadsheet as well.

Lizzy 20141209 – I’ve checked all reproduction data and fixed the ages

1. The higher resolutions  
   I understand and can fast implement the changes required. Thinking about it again, I have problem understanding it though. How would that be added to the plot? I don’t see the possibilities for doing it consistently with existing result.

Lizzy 20141209 – The more I think about it, the more I agree there is a problem. I think for now, let’s implement these numbers on a full year basis and I’ll talk some more with Daniel about it. While I think it is reasonable to scale growth rates to an “annual basis” it is true we can’t do that for reproduction.

1. Total allocation to different categories.   
   The calculations are now done. Graphs 1 and 2 are also implemented and included in the pdf file.

Lizzy 20141209 – Thanks