Questions file 2006-2017:

* 2013: No info on number of predated seeds (only on n predation holes)

Hmm. In the last file you sent me there is number of preyed seeds for 2013. If there are cases where there is no info on number of preyed seeds but info total number of seeds and holes, then we can use relationships derived from pods where we have all information.

* 2014-2015: Cum\_n\_fl (i.e. number of flowers that would have opened in the absence of grazing, column “Tot n blm” in other years) not calculated – take max of uppskattat blm n or impute from other traits?

Max of “Uppskattat blomantal” is perfectly fine! - OK

* 2014-2015: Cannot get FFD\_prop\_överblommad from the comments. In previous years I used the information provided in comments to calculate the proportion of open flowers that were withered (FFD\_prop\_överblommad). For example, if comment says “6 blm + 10 öbl”, FFD\_prop\_överblommad = 10/16 = 0.625. This could be used to calculate the corrected FFD (plants with larger proportions of withered flowers would have flowered earlier compared to plants with smaller proportions of withered flowers). But on these years, I cannot understand the comments very well in order to do the same thing. I remember that flowers change colour after being pollinated and there is some info about colours on the comments, but I am not sure how to use it – Example comments:
  + 20/5 2öblm 1 lila med tuggat segel
  + 20/5 1öblm 2 ljuslila 2 nya blm 26/5 3 av skotten toppbetade
  + 6/5 1 ny 1 blålila pip
  + 20/5 1 öblm 1 blålilapip 3 lila pip 1 ny

As we still have the number of wilted flowers in these cases (öblm), and as the number or proportion of wilted flowers only will result in very minor adjustments, I don’t think this is a very big problem. We could still use the presence and number of “öblm” to guide in adjustments. I think the notes about flower colour refers to frost or other damage and not to wilting, so I think we can neglect it in assessments of FFD. - OK

* 2015: Some have noted ?/1?/0? in blm/veg. Some of these have grazing noted, but then no number of shoots noted. Others have both grazing and n shoots noted, but nothing else, and some also have some data on shoot volume. What to do with them? I guess these are vegetatives?

Yes, if there are no information suggesting otherwise these were flowering or dormant. – OK, all noted as veg (blm/veg=0)

* 2016: faktiskt blomdatum = FFD?

Yes. And note in 2016 and 2017 I did recordings and assessed the most likely flowering date already in the field at every visit. So, “faktiskt blomdatum” in these years is the already adjusted value and needs no further adjustment. – OK

* 2016: maxblom / Gissat blomantal efter bete – what exactly are these values? Could any of these be used as cum\_n\_fl?

Yes, “maxblom” equals cum n fl when there is no grazing. Gissat blomantal efter bete is the “field-imputed” value which was based on previous observations of the same individual and on how the remaining parts of the shoot looked like. So, we should use this value rather than make new imputations. – OK

Note that there should be only values in one of these columns but of some reason the data appear to have been entered in the wrong way in many cases (I did not do it myself and the protocol apparently is not clear). I have now gone through the file and corrected all values in the attached file. - OK

* 2016: H1 H2 H3 H4 F – what are these values?

H1 is the height of shoot 1 etc. – OK

F is the number of fruits

* 2016: Missing info on shoot diameters and heights, as well as on fruits and seeds, for ALL plants! – What to do?

Shoot heights are available – see above - but not diameters. We will have to calculate above-ground based on height only. 🡪 for 2016, diameter always missing. For 2017, sometimes there is diameter, sometimes height, and sometimes both. In both cases, calculate missing values with regressions with all data. - OK

Number of fruits is available – see above. - OK

Number of seeds in each fruit and the number of predation holes were in a separate file. I attach it now. Sorry. But here there is only number of seeds and predation holes so we have to estimate the number of preyed seeds based on this information. - OK

* 2016-2017: No info on grazing. n utslagna blm = n removed flowers? Then I could probably calculate the proportion of removed flowers from this?

No n utslagna blm = cumulative number of opened flowers. As total flower number was estimated at each visit as “blomantal”, you should use the last available estimate for each individual as the value for total flower number. – OK

For example, for individual 241 we recorded 3 open flowers May 16 and estimated the total number of flowers to be 17. It was then grazed. Hence, we use 17 as total flower number, May 15 as FFD and grazing as 100%. – OK

There is information but only in the comments column in 2016 so it is not clear. “Avb” means grazed. Mostly all flowers were removed but in some cases only some racemes were damaged in grazed shoots but this should be evident from the number of flower recordings in each date. I have tried to mark all plants that were noted as grazed with red in the comments column in the attached file. - OK

In 2017 there is a column “Avbetad” – meaning grazed where the date it was grazed was noted. If there is no further comment all shoots were completely grazed (i.e. all flowers). In some cases, it says 1/2sk meaning that one of two shoots was grazed, and sometimes it says top or klasar avb, meaning that only the top or some racemes was eaten. In these cases 100% of flowers or less could have been removed and we have to find that out from the weekly recordings. - OK

* 2017: The format is very different to other years!
  + FFD: Why is there a different “Blomstart” date noted at different dates? There is also a column called “Faktisk blomstart”, but there is only a value for few plants. How to get FFD?

Again, the there is a problem of communication between me and Malin that entered the data. I have now gone through the protocols and added the best estimate of FFD (as in 2016 I estimated FFD and total flower number at each visit and based the final estimate on the last estimate before and the first after that flowered had opened). They are now in the “Faktiskt blomstart” column in the attached file (only given as dates in May, e.g. 15 means 2017-05-15). – OK

* + There is info on number of fruits (apparently only 7 plants produced fruits), but not on seeds.

See above. Data are in the attached file. - OK

* + For measures of shoot diameters and heights, there is no info about if the shoot is grazed or not.

There is in column BK. Almost every shoot was grazed. – OK

But I guess that when diameter is noted but height is not, it corresponds to a grazed shoot? 🡪 Corresponds to comment “avb.”=avbetade? And then I should calculate height from a regression height-diameter with data from all years.

Yes! – OK