

Metabolic networking in *Brunfelsia calycina* petals during flower opening

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Supplemental Materials and Methods S1 - MarkerLynx data treatment

The process of zeros treatment in data obtained from MarkerLynx: Integration errors in MarkerLynx often cause spurious zeros to appear in the output. Their presence hampers further statistical analysis. Our task was to determine in which cases the zeros are due to signal integration on the basal level, and in which cases the zeros are due to mis-detection of existing peaks.

First, two thresholds were determined:

- 1) The high threshold (HT) above which markers were considered high was determined in order to treat zeros that result due to mis-integration of high peaks. HT was set to be the 90th percentile of all markers' intensity.
- 2) Representative baseline value (RBV) was determined to replace zero-valued markers suspected to result from true absence of peak. RBV was calculated by obtaining the most often occurring range of values among non-zero low intensity (below MarkerLynx peak area of 10) markers. RBV was determined as the lowest value in this range.

The rules for replacing marker values by RBV or for removal thereof were as follows:

For each of the two developmental stages for each of the markers the mean intensity of non-zero markers was calculated across replicates. If the mean was lower than HT all existing zeros were replaced by RBV. If the mean was higher than HT two cases were considered. 1) when zero intensity appears in one of the replicates the zero value was removed from analysis and further analysis was carried out on 5 replicates. 2) in case that more than one zero appears among the replicates the whole marker was removed from analysis.

