Lathyrus ms2: Selection on reaction norms - exploratory analyses
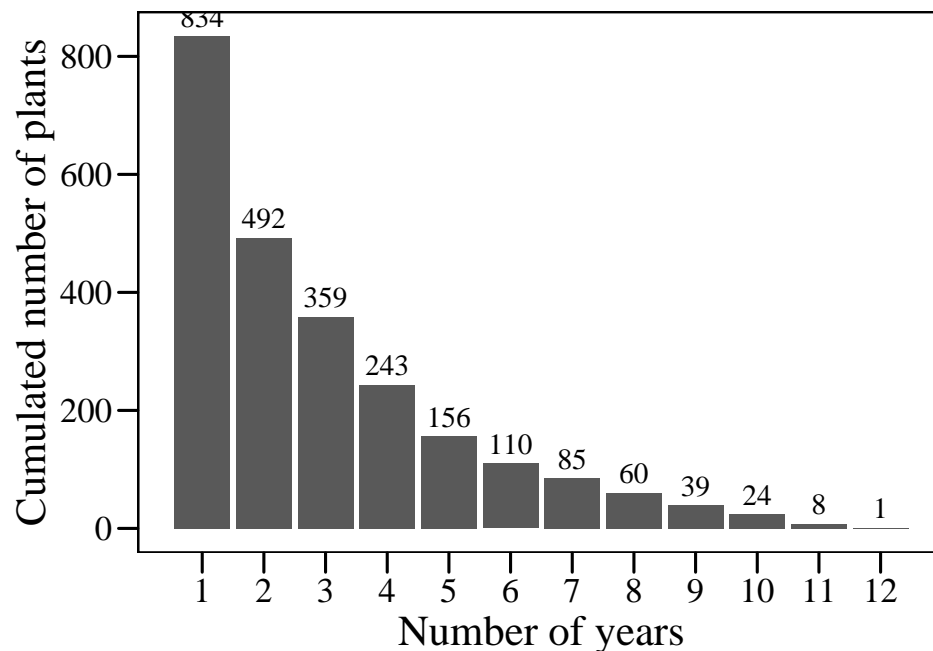
Contents

Check how many years of data are there for each plant individual

```
## # A tibble: 12 x 3
##     n_years n_pls cum_n_pls
##       <int> <int>     <int>
##  1      12     1         1
##  2      11     7         8
##  3      10    16        24
##  4       9    15        39
##  5       8    21        60
##  6       7    25        85
##  7       6    25       110
##  8       5    46       156
##  9       4    87       243
## 10      3   116       359
## 11      2   133       492
## 12      1   342       834
```


If we use plants with 3 or more years of data −> 359 plant individuals

If we use plants with 4 or more years of data –> 243 plant individuals

If we use plants with 5 or more years of data –> 156 plant individuals

Create subsets of data with plants with 3/4/5 or more years of data

```r
(data_3yrs<- select(data_sel,c(1:3,20,42,171:172,183))%>% # Select columns needed by now
  group_by(id)%>%
  mutate(n_years = n(),first_yr =  min(year))%>%
  filter(n_years>=3))
```

```
## # A tibble: 1,803 x 10
## # Groups:   id [359]
##     year  FFD id    n_intact_seeds  n_fl mean_4 mean_5 min_4 n_years
##    <int> <dbl> <fct>         <dbl> <int>  <dbl>  <dbl> <dbl>   <int>
##  1  1987  56.9 old_~             7    30   4.58   8.61  0.48       3
##  2  1987  59.9 old_~             9    33   4.58   8.61  0.48       4
##  3  1987  60.9 old_~             0    40   4.58   8.61  0.48       6
##  4  1987  60.9 old_~             2    23   4.58   8.61  0.48       4
##  5  1987  61.9 old_~             0    19   4.58   8.61  0.48       6
##  6  1987  62.9 old_~          13.0    11   4.58   8.61  0.48       5
##  7  1987  62.9 old_~            17    25   4.58   8.61  0.48       4
##  8  1987  62.9 old_~            13    16   4.58   8.61  0.48       3
##  9  1987  62.9 old_~            14    14   4.58   8.61  0.48       3
## 10  1987  62.9 old_~            22    21   4.58   8.61  0.48       8
## # ... with 1,793 more rows, and 1 more variable: first_yr <dbl>
```

```r
data_3yrs$id<-droplevels(data_3yrs$id)
length(levels(data_3yrs$id)) # 359 plant individuals
```

```
## [1] 359
```

```r
(data_4yrs<- select(data_sel,c(1:3,20,42,171:172,183))%>% # Select columns needed by now
  group_by(id)%>%
  mutate(n_years = n(),first_yr =  min(year))%>%
  filter(n_years>=4))
```

```
## # A tibble: 1,455 x 10
## # Groups:   id [243]
##     year  FFD id    n_intact_seeds  n_fl mean_4 mean_5 min_4 n_years
##    <int> <dbl> <fct>         <dbl> <int>  <dbl>  <dbl> <dbl>   <int>
##  1  1987  59.9 old_~             9    33   4.58   8.61  0.48       4
##  2  1987  60.9 old_~             0    40   4.58   8.61  0.48       6
##  3  1987  60.9 old_~             2    23   4.58   8.61  0.48       4
##  4  1987  61.9 old_~             0    19   4.58   8.61  0.48       6
##  5  1987  62.9 old_~          13.0    11   4.58   8.61  0.48       5
##  6  1987  62.9 old_~            17    25   4.58   8.61  0.48       4
##  7  1987  62.9 old_~            22    21   4.58   8.61  0.48       8
##  8  1987  62.9 old_~             4    23   4.58   8.61  0.48       4
##  9  1987  62.9 old_~            58    48   4.58   8.61  0.48       5
## 10  1987  62.9 old_~            12     9   4.58   8.61  0.48       4
## # ... with 1,445 more rows, and 1 more variable: first_yr <dbl>
```

```r
data_4yrs$id<-droplevels(data_4yrs$id)
length(levels(data_4yrs$id)) # 243 plant individuals
```

```
## [1] 243
```

```r
(data_5yrs<-select(data_sel,c(1:3,20,42,171:172,183))%>% # Select columns needed by now
  group_by(id)%>%
  mutate(n_years = n(),first_yr =  min(year))%>%
  filter(n_years>=5))
```

```
## # A tibble: 1,107 x 10
## # Groups:   id [156]
##     year   FFD id    n_intact_seeds  n_fl mean_4 mean_5 min_4 n_years
##    <int> <dbl> <fct>          <dbl> <int>  <dbl>  <dbl> <dbl>   <int>
##  1  1987  60.9 old_~              0    40   4.58   8.61  0.48       6
##  2  1987  61.9 old_~              0    19   4.58   8.61  0.48       6
##  3  1987  62.9 old_~           13.0    11   4.58   8.61  0.48       5
##  4  1987  62.9 old_~             22    21   4.58   8.61  0.48       8
##  5  1987  62.9 old_~             58    48   4.58   8.61  0.48       5
##  6  1987  62.9 old_~              0    26   4.58   8.61  0.48       5
##  7  1987  62.9 old_~             23     7   4.58   8.61  0.48       5
##  8  1987  62.9 old_~             26    24   4.58   8.61  0.48       7
##  9  1987  62.9 old_~             96    72   4.58   8.61  0.48       7
## 10  1987  62.9 old_~             36    48   4.58   8.61  0.48       7
## # ... with 1,097 more rows, and 1 more variable: first_yr <dbl>
```

```r
data_5yrs$id<-droplevels(data_5yrs$id)
length(levels(data_5yrs$id)) # 156 plant individuals
```

```
## [1] 156
```