## Module "4": Assignment 1

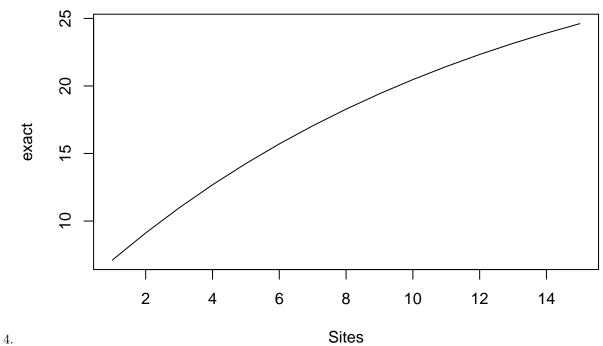
## Ellen Bledsoe

## 2024-04-29

## Warning in cor(x > 0): the standard deviation is zero

3.

## Asym R0 lrc ## 32.879079 4.928119 -2.510697



5.

## [1] 8

## [1] 5

7.

## [1] 182

8.

```
## 1
          DΩ
                      14 0.07692308
## 2
          DM
                      89 0.48901099
## 3
                      30 0.16483516
          SO
## 4
          SH
                       12 0.06593407
## 5
          SF
                       3 0.01648352
## 6
          PP
                       3 0.01648352
## 7
          PB
                       8 0.04395604
## 8
          BA
                      23 0.12637363
  9.
     species individuals
                                        ln_prop
                                prop
## 1
          D0
                      14 0.07692308 -2.5649494
## 2
          DM
                      89 0.48901099 -0.7153703
## 3
          SO
                      30 0.16483516 -1.8028093
## 4
          SH
                      12 0.06593407 -2.7191000
## 5
          SF
                        3 0.01648352 -4.1053944
          PP
## 6
                       3 0.01648352 -4.1053944
                       8 0.04395604 -3.1245651
## 7
          PΒ
                      23 0.12637363 -2.0685125
## 8
          BA
 10.
     species individuals
                                prop
                                        ln_prop prop_lnprop
## 1
                      14 0.07692308 -2.5649494 -0.19730380
          D0
## 2
          DM
                      89 0.48901099 -0.7153703 -0.34982395
## 3
          SO
                      30 0.16483516 -1.8028093 -0.29716637
## 4
          SH
                      12 0.06593407 -2.7191000 -0.17928132
          SF
                       3 0.01648352 -4.1053944 -0.06767134
## 5
## 6
          PP
                       3 0.01648352 -4.1053944 -0.06767134
## 7
          PB
                       8 0.04395604 -3.1245651 -0.13734352
                      23 0.12637363 -2.0685125 -0.26140542
## 8
          BA
 11.
## [1] 1.557667
 12.
## [1] 1.600014
 14.
##
     species individuals
                                prop
                                        ln_prop prop_lnprop
                                                                  prop_sq
## 1
          D0
                      14 0.07692308 -2.5649494 -0.19730380 0.0059171598
## 2
                      89 0.48901099 -0.7153703 -0.34982395 0.2391317474
          DM
## 3
          SO
                      30 0.16483516 -1.8028093 -0.29716637 0.0271706316
## 4
                      12 0.06593407 -2.7191000 -0.17928132 0.0043473011
          SH
## 5
          SF
                       3 0.01648352 -4.1053944 -0.06767134 0.0002717063
          PP
                       3 0.01648352 -4.1053944 -0.06767134 0.0002717063
## 6
## 7
          PΒ
                       8 0.04395604 -3.1245651 -0.13734352 0.0019321338
                      23 0.12637363 -2.0685125 -0.26140542 0.0159702934
## 8
          BA
```

prop

species individuals

##

15.

## [1] 0.7049873

16.

## [1] 0.7962203