Module 3 Assignment 3

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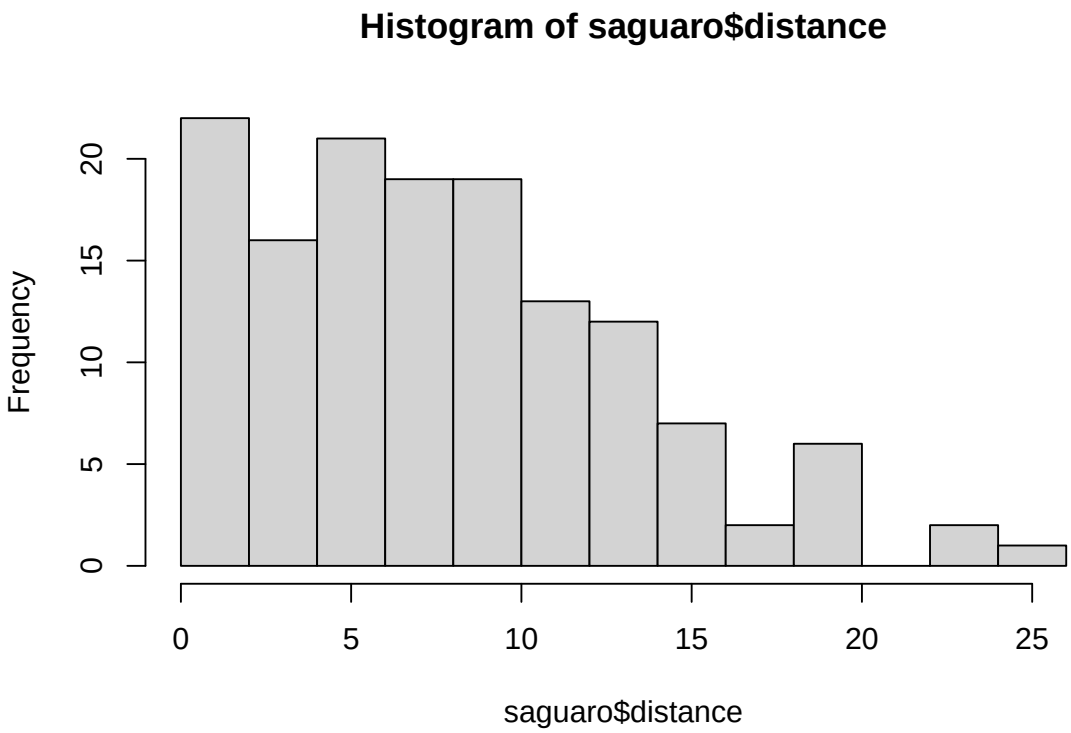
2025-04-21

1.

```
##              group length
## 1       JG, AV, MN  64.00
## 12      AB, SS, ML 178.30
## 32  HA, JB, BD, VM 112.80
## 43      CB, CC, MZ 136.50
## 55      KH, NT, BS 125.75
## 61     KT, MRD, BC  80.15
## 74      AB, JA, SK 164.00
## 87      HB, SI, BM  48.00
## 93      NL, MS, MM 155.00
## 115     EF, LB, YX  59.00
```



2.

3.

```
## [1]  0  4  8 12 16 20
```

4.

```
## Warning in formatDistData(saguaro, distCol = "distance", transectNameCol =
## "group", : The transects were converted to a factor
```

```
##                [0,4] (4,8] (8,12] (12,16] (16,20]
## AB, JA, SK         5     7      1       0       0
## AB, SS, ML         7     4      4       4       1
## CB, CC, MZ         3     4      2       0       3
## EF, LB, YX         5     8      9       4       0
## HA, JB, BD, VM     4     3      2       1       1
## HB, SI, BM         1     1      4       0       0
## JG, AV, MN         2     2      3       3       0
## KH, NT, BS         2     2      2       0       0
## KT, MRD, BC        3     3      4       2       1
## NL, MS, MM         6     6      1       5       2
```

5.

```
## Data frame representation of unmarkedFrame object.
##                y.1 y.2 y.3 y.4 y.5
## AB, JA, SK       5   7   1   0   0
## AB, SS, ML       7   4   4   4   1
## CB, CC, MZ       3   4   2   0   3
## EF, LB, YX       5   8   9   4   0
## HA, JB, BD, VM   4   3   2   1   1
## HB, SI, BM       1   1   4   0   0
## JG, AV, MN       2   2   3   3   0
## KH, NT, BS       2   2   2   0   0
## KT, MRD, BC      3   3   4   2   1
## NL, MS, MM       6   6   1   5   2
```

7.

```
##             nPars    AIC delta   AICwt cumltvWt
## Half Normal     2 204.20  0.00 5.3e-01     0.53
## Hazard Rate     3 204.48  0.27 4.7e-01     1.00
## Exponential     2 221.44 17.24 9.6e-05     1.00
## Uniform         1 233.73 29.53 2.1e-07     1.00
```

9.

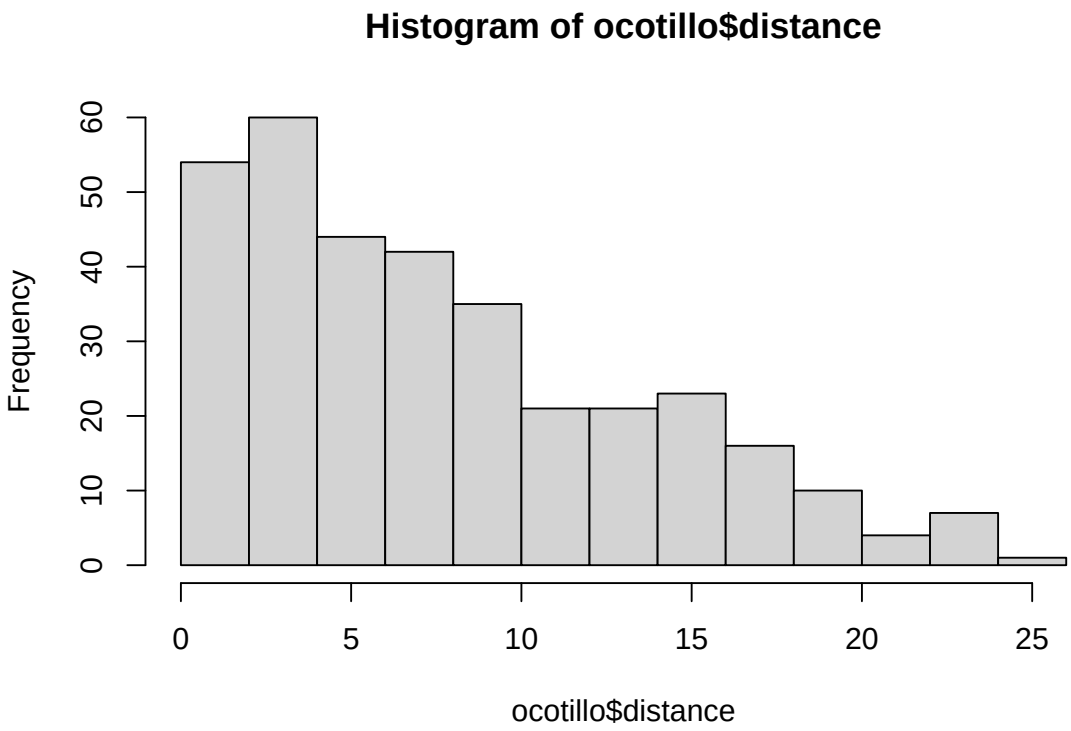
```
## Backtransformed linear combination(s) of Density estimate(s)
##
##  Estimate   SE LinComb (Intercept)
##      49.5 5.66     3.9           1
##
## Transformation: exp
```

```
##             0.025    0.975
## lam(Int) 39.57627 61.96885
```

11.

```
##              group length
## 1       JG, AV, MN  64.00
## 34      AB, SS, ML 178.30
## 80  HA, JB, BD, VM 112.80
## 130     CB, CC, MZ 136.50
## 180     KH, NT, BS 125.75
## 210    KT, MRD, BC  80.15
```

```
## 233       AB JA SK 164.00
## 253     HB, SI, BM  48.00
## 270     NL, MS, MM 155.00
## 321     EF, LB, YX  59.00
```



12.

13.

```
## [1]  0  5 10 15 20 25
```

14.

```
## Warning in formatDistData(ocotillo, distCol = "distance", transectNameCol =
## "group", : The transects were converted to a factor
```

```
##                [0,5] (5,10] (10,15] (15,20] (20,25]
## AB JA SK          10      8       2       0       0
## AB, SS, ML        17      9       9       7       4
## CB, CC, MZ         9     17       8      11       5
## EF, LB, YX         4      8       3       3       0
## HA, JB, BD, VM    22     16       6       6       0
## HB, SI, BM         3      7       5       2       0
## JG, AV, MN        17      6       6       4       0
## KH, NT, BS        13     15       2       0       0
## KT, MRD, BC       14      7       2       0       0
## NL, MS, MM        26      7       8       7       3
```

15.

```
## Data frame representation of unmarkedFrame object.
##                y.1 y.2 y.3 y.4 y.5
## AB JA SK        10   8   2   0   0
```

```
## AB, SS, ML      17   9   9   7   4
## CB, CC, MZ       9  17   8  11   5
## EF, LB, YX       4   8   3   3   0
## HA, JB, BD, VM  22  16   6   6   0
## HB, SI, BM       3   7   5   2   0
## JG, AV, MN      17   6   6   4   0
## KH, NT, BS      13  15   2   0   0
## KT, MRD, BC     14   7   2   0   0
## NL, MS, MM      26   7   8   7   3
```

17.

```
## Backtransformed linear combination(s) of Density estimate(s)
##
##  Estimate  SE LinComb (Intercept)
##       118 8.3    4.77           1
##
## Transformation: exp
```

```
##             0.025    0.975
## lam(Int) 103.0058 135.6364
```