

Ohio swan movement summary

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Load full dataset up until July 2022

Max displacement by swan over entire collar duration (in kilometers)

```
## # A tibble: 20 x 2
##   id      max_displacement
##   <chr>          <dbl>
## 1 OM              43.8
## 2 ON               4.72
## 3 1M              19.6
## 4 1N               6.87
## 5 2M              25.9
## 6 2N              12.8
## 7 3M               4.18
## 8 3N              19.7
## 9 4M              42.0
## 10 4N              6.82
## 11 5M              12.8
## 12 5N              62.7
## 13 6M            1185.
## 14 6N              27.7
## 15 7M              187.
## 16 7N              47.5
## 17 8M               9.09
## 18 8N              59.5
## 19 9M              11.1
## 20 9N            1342.
```

If we group seasons by fall=Aug-Nov, winter=Dec-Feb, breeding=Mar-July

Average max displacement by season

```
## # A tibble: 3 x 2
##   season  avg_max_displacement
##   <chr>          <dbl>
## 1 breeding    1342.
## 2 fall         47.3
## 3 winter      62.7
```

Remove 6M and 9N as outliers (dispersers)

```
## # A tibble: 2 x 2
##   season  avg_max_displacement
##   <chr>          <dbl>
## 1 breeding    187.
## 2 fall         47.3
```

```
## 3 winter 62.7
```

Remove 7M as well

```
## # A tibble: 3 x 2
##   season avg_max_displacement
##   <chr>      <dbl>
## 1 breeding 43.8
## 2 fall     47.3
## 3 winter   62.7
```

Summarize by month instead of season

```
## # A tibble: 12 x 2
##   month avg_max_displacement
##   <dbl>      <dbl>
## 1     1      62.6
## 2     2      62.7
## 3     3     187.
## 4     4    1185.
## 5     5    1236.
## 6     6    1342.
## 7     7      27.0
## 8     8      32.7
## 9     9      47.3
## 10    10      36.6
## 11    11      33.2
## 12    12      35.9
```

Drop big dispersers(6M and 9N)

```
## # A tibble: 12 x 2
##   month avg_max_displacement
##   <dbl>      <dbl>
## 1     1      62.6
## 2     2      62.7
## 3     3     187.
## 4     4      33.6
## 5     5      73.4
## 6     6      91.2
## 7     7      27.0
## 8     8      32.7
## 9     9      47.3
## 10    10      32.6
## 11    11      31.5
## 12    12      35.9
```

Drop 7M as well

```
## # A tibble: 12 x 2
##   month avg_max_displacement
##   <dbl>      <dbl>
## 1     1      62.6
## 2     2      62.7
## 3     3      34.7
## 4     4      33.6
## 5     5      32.4
## 6     6      43.8
```

##	7	7	27.0
##	8	8	32.7
##	9	9	47.3
##	10	10	32.6
##	11	11	31.5
##	12	12	35.9