Week12_Assignment

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2024-04-08

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.5
## v forcats   1.0.0     v stringr   1.5.0
## v ggplot2   3.4.2     v tibble    3.2.1
## v lubridate 1.9.2     v tidyr     1.3.0
## v purrr     1.0.1
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

1. For Loop Basics (30 pts)

1a.

```
## [1] 3
## [1] 6
## [1] 9
## [1] 12
## [1] 15
```

1b.

```
## [1] 4.84
## [1] 7.7
## [1] 21.12
## [1] 2.64
```

1c.

```
## [1] "robin"
## [1] "woodpecker"
## [1] "blue jay"
## [1] "sparrow"
```

1d.

```
## [1]  5.309292 13.854424 38.484510
```

1e.

```
## [1]  5.309292 13.854424 38.484510
```

```
## [1] 3.85 5.28 4.48
```

2. Size Estimates by Name (30 pts)

```
## Rows: 500 Columns: 2
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr (1): species
## dbl (1): lengths
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

2a.

```
## [1] 24341.68 27017.90 67453.38 22114.19 53884.76 52026.34
```

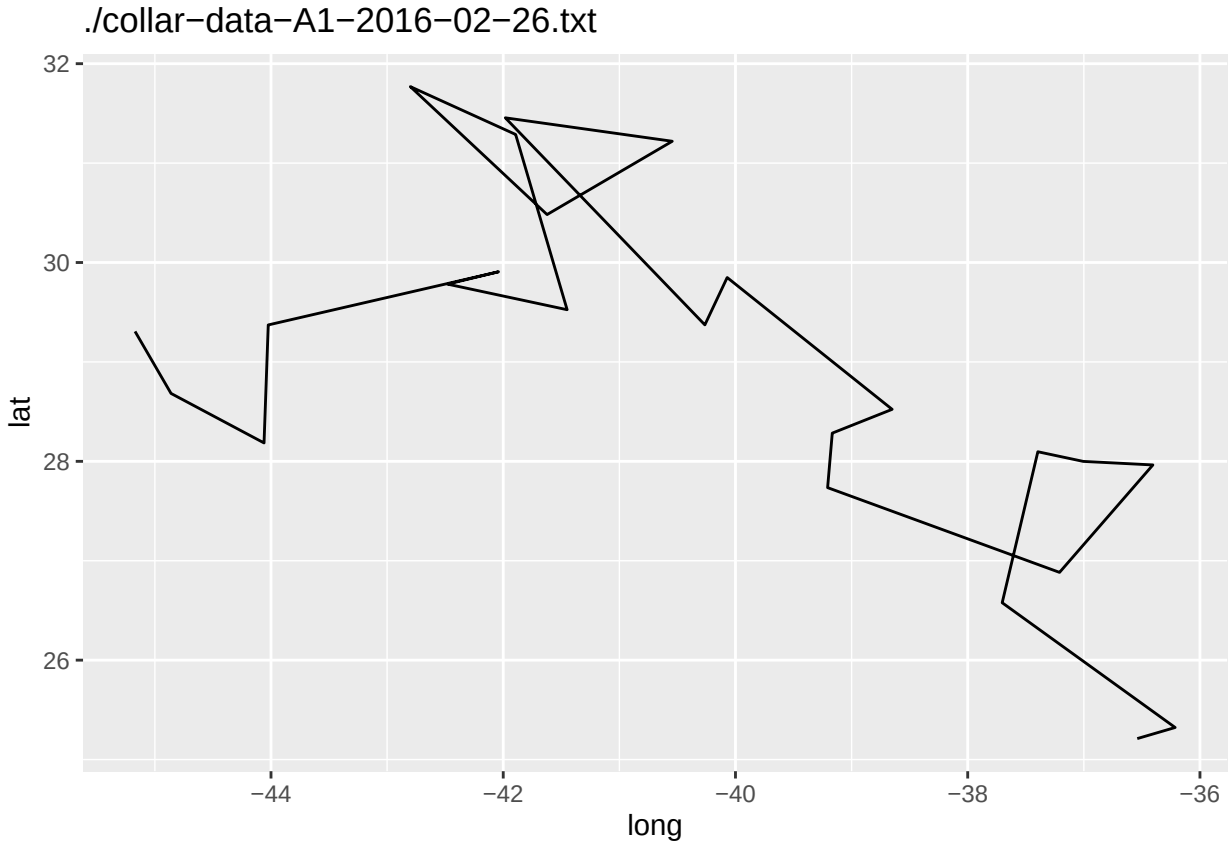
2b.

```
## # A tibble: 6 x 3
##   species      lengths masses
##   <chr>          <dbl>  <dbl>
## 1 Stegosauria     18.5 24342.
## 2 Ankylosauria    16.4 27018.
## 3 Ankylosauria    23.7 67453.
## 4 Sauropoda       23.9 22114.
## 5 Ankylosauria    21.7 53885.
## 6 Ankylosauria    21.4 52026.
```

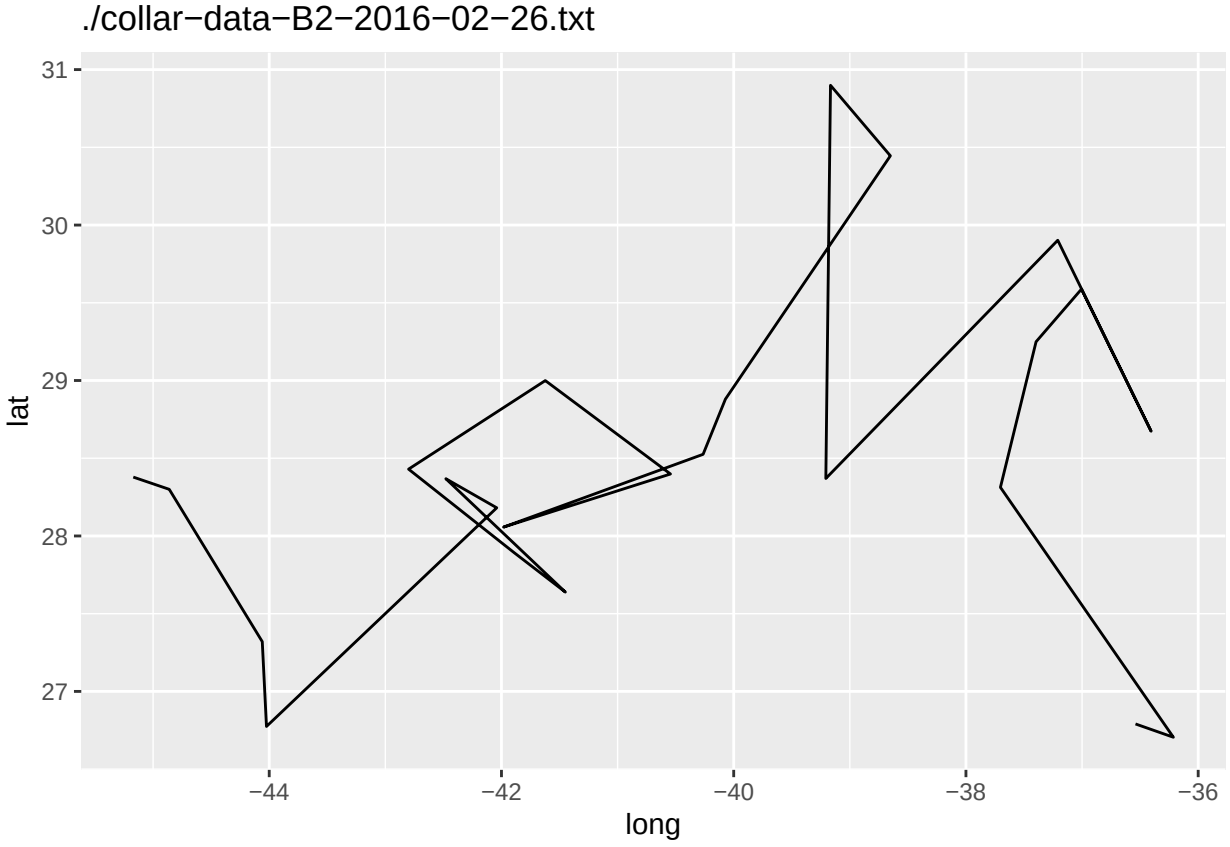
2c.

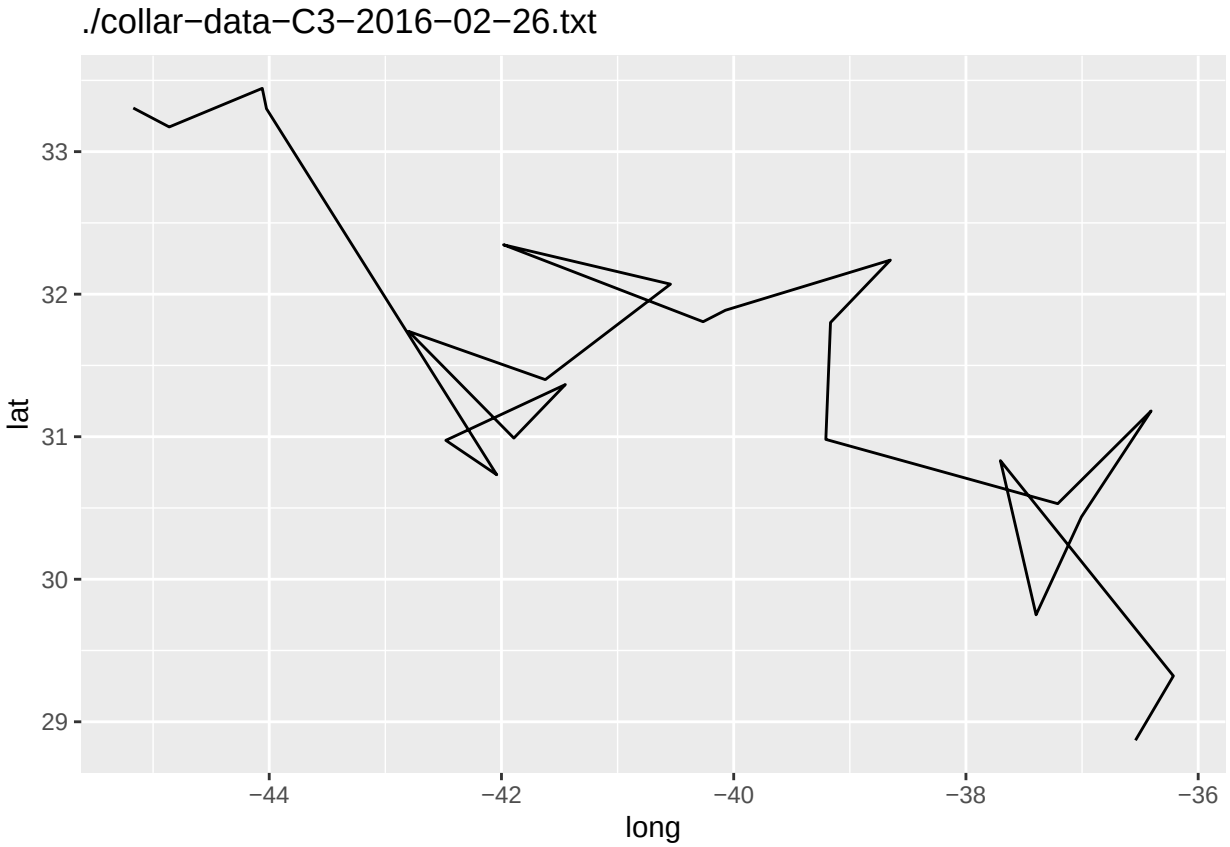
```
## # A tibble: 4 x 2
##   species      avg_mass
##   <chr>           <dbl>
## 1 Ankylosauria   46819.
## 2 Sauropoda      16104.
## 3 Stegosauria    31924.
## 4 Theropoda      45572.
```

3. Multi-file Analysis (40 pts)



3a.




./collar−data−C3−2016−02−26.txt
33
32
31
30
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lat
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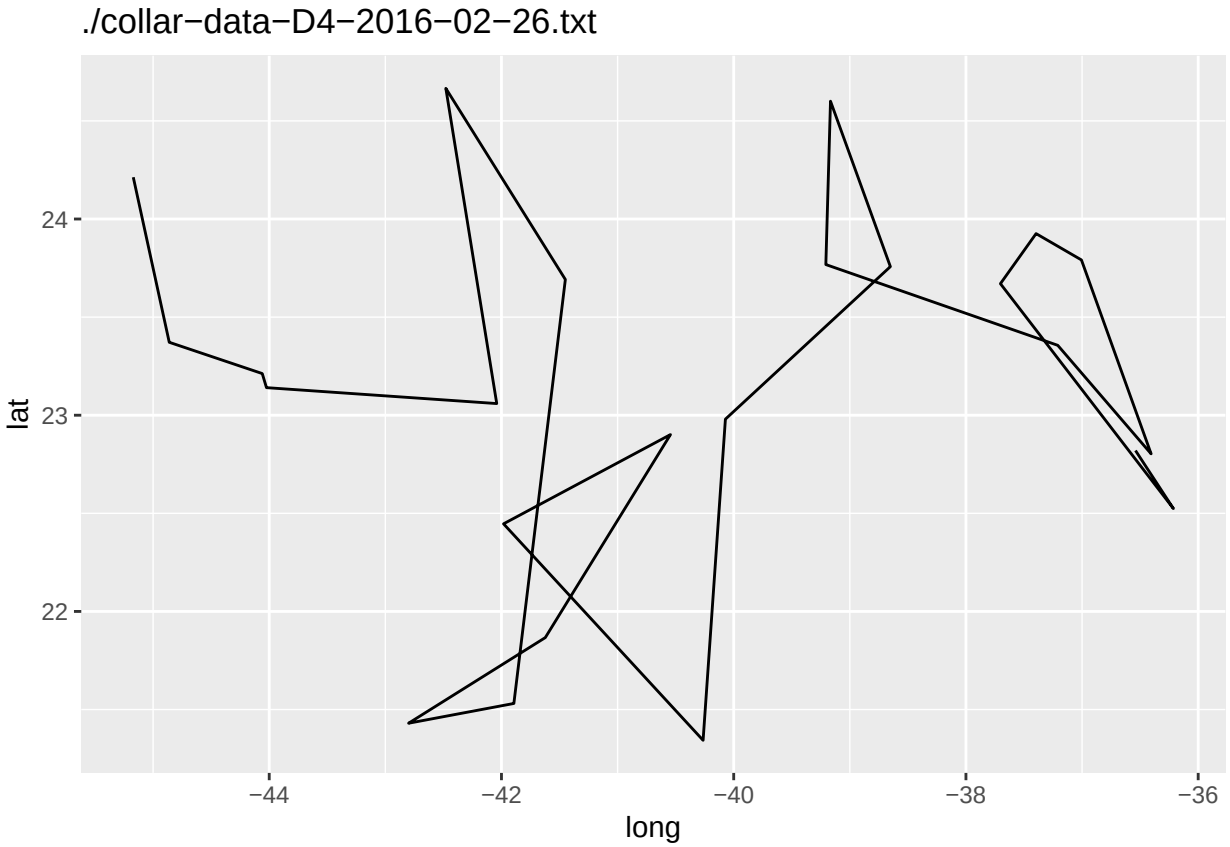
long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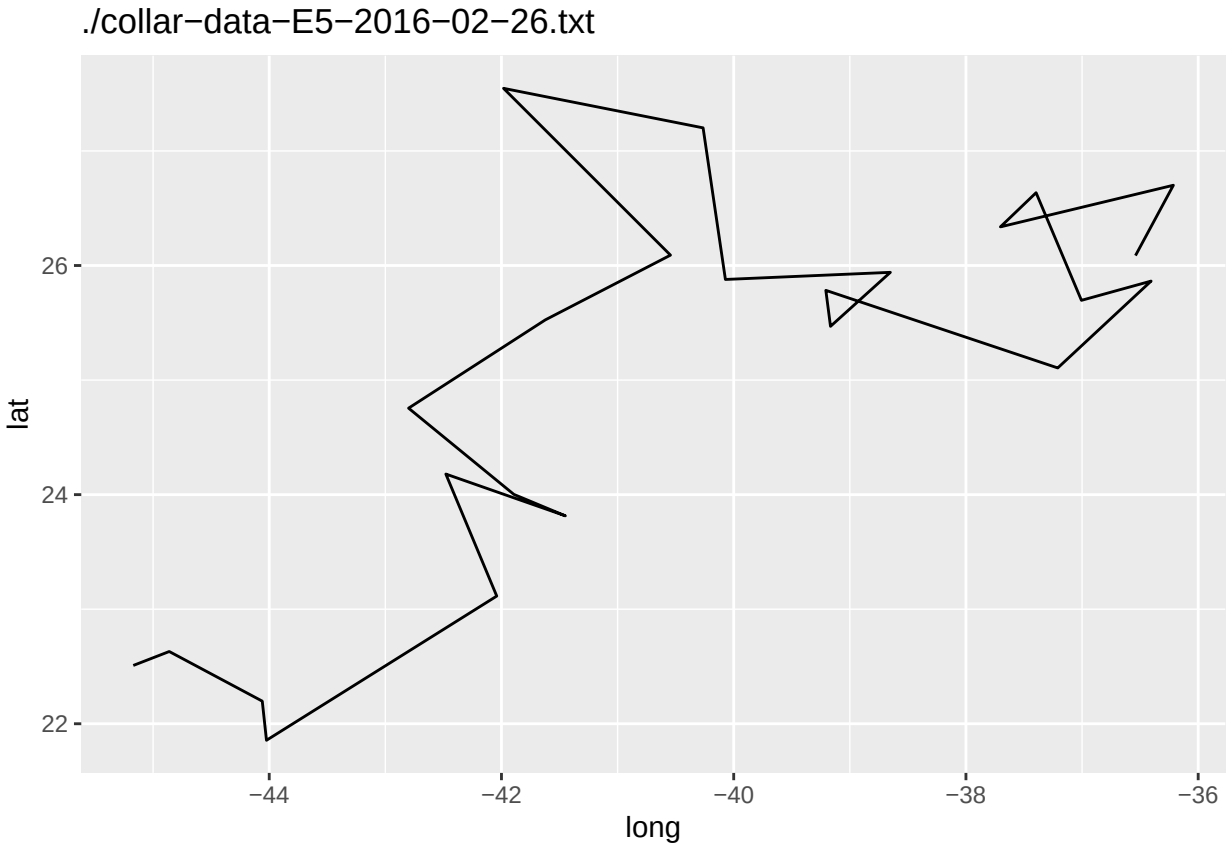
long


./collar−data−E5−2016−02−26.txt
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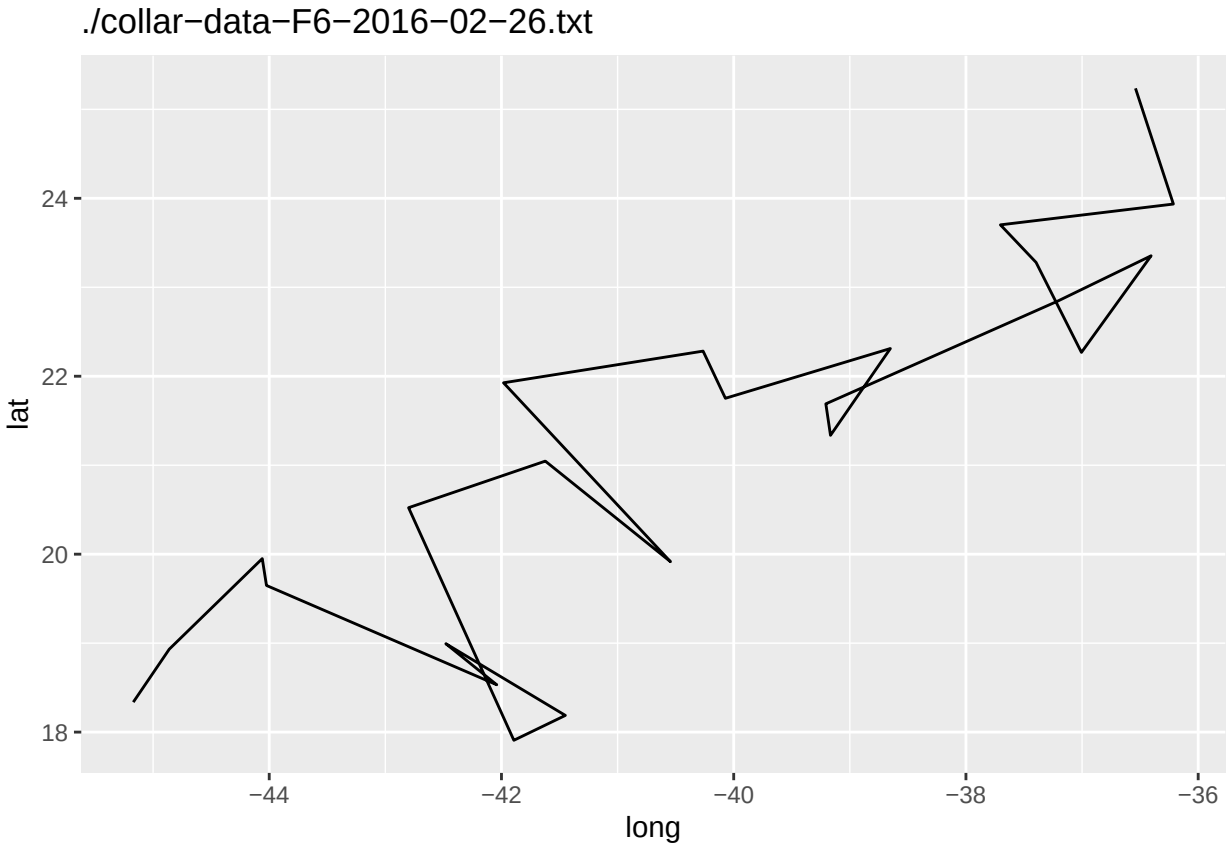
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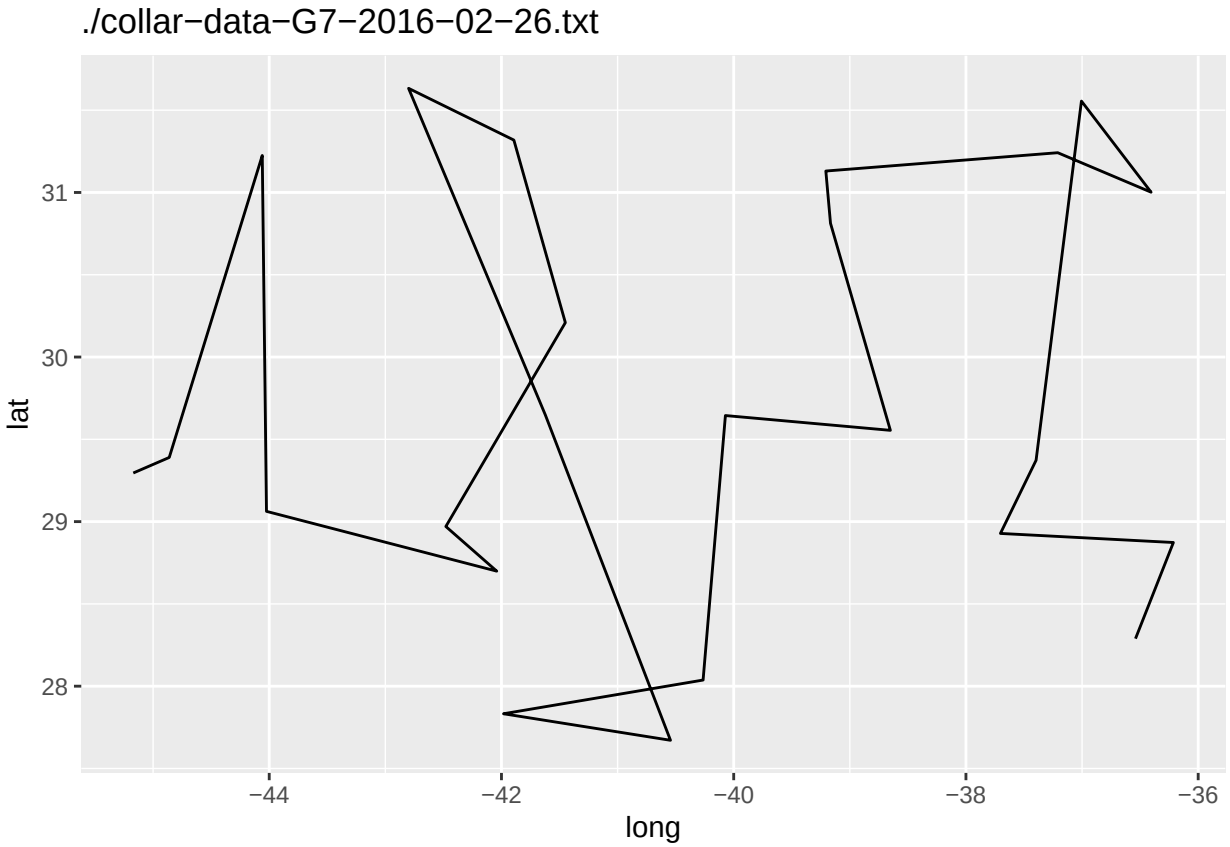
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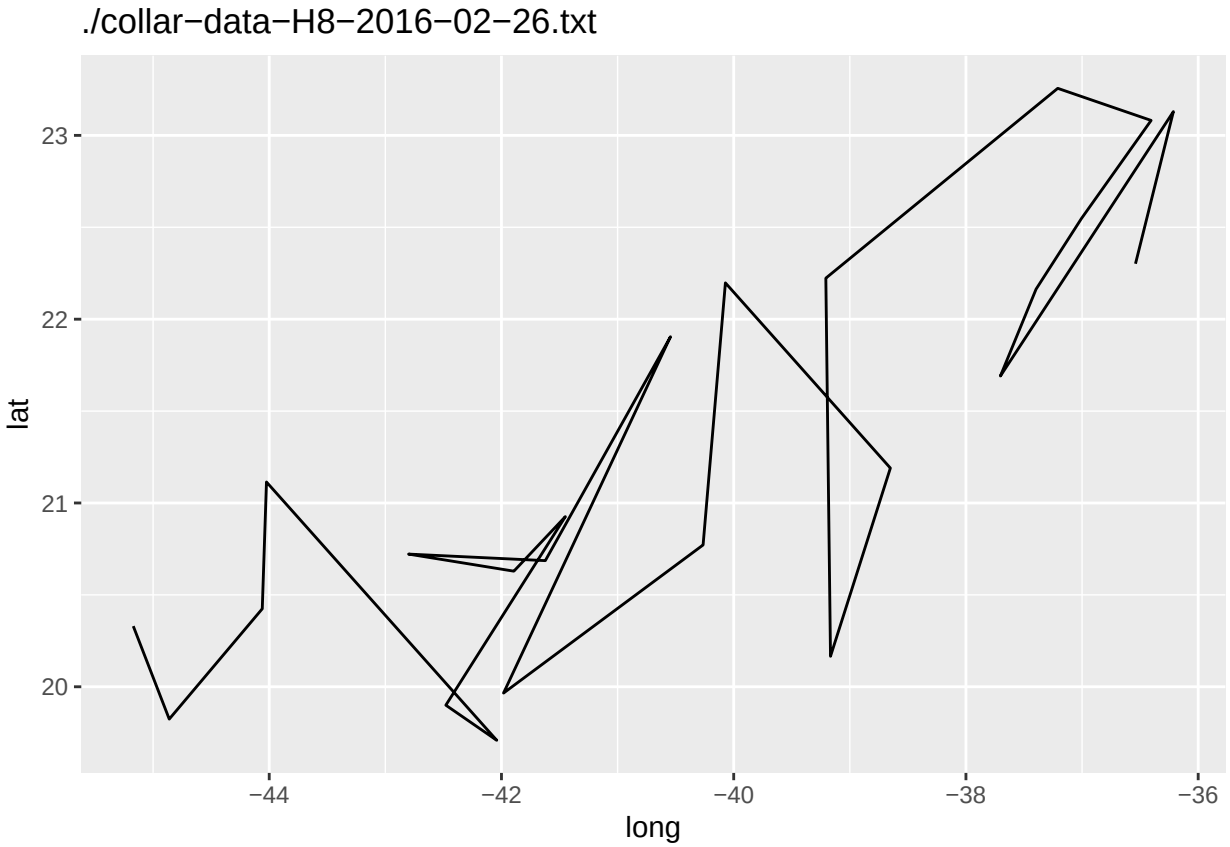
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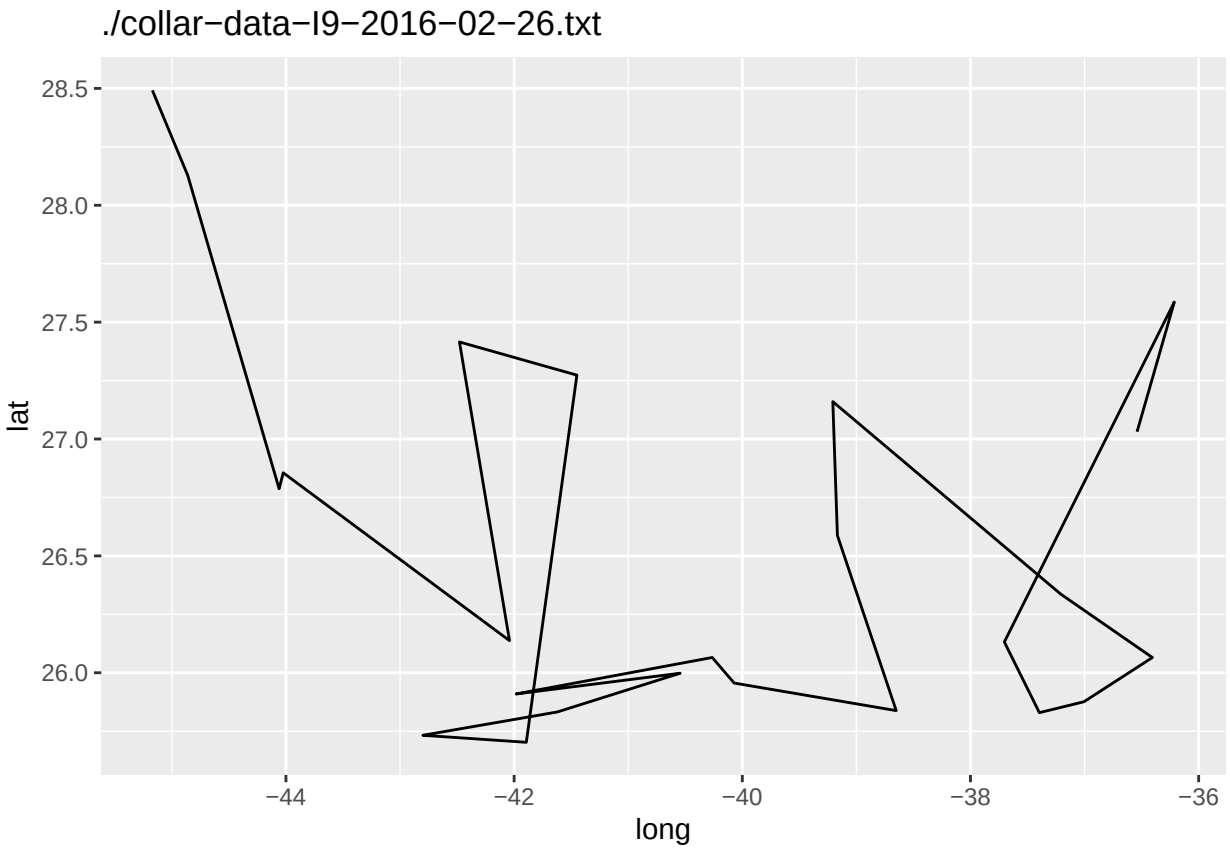
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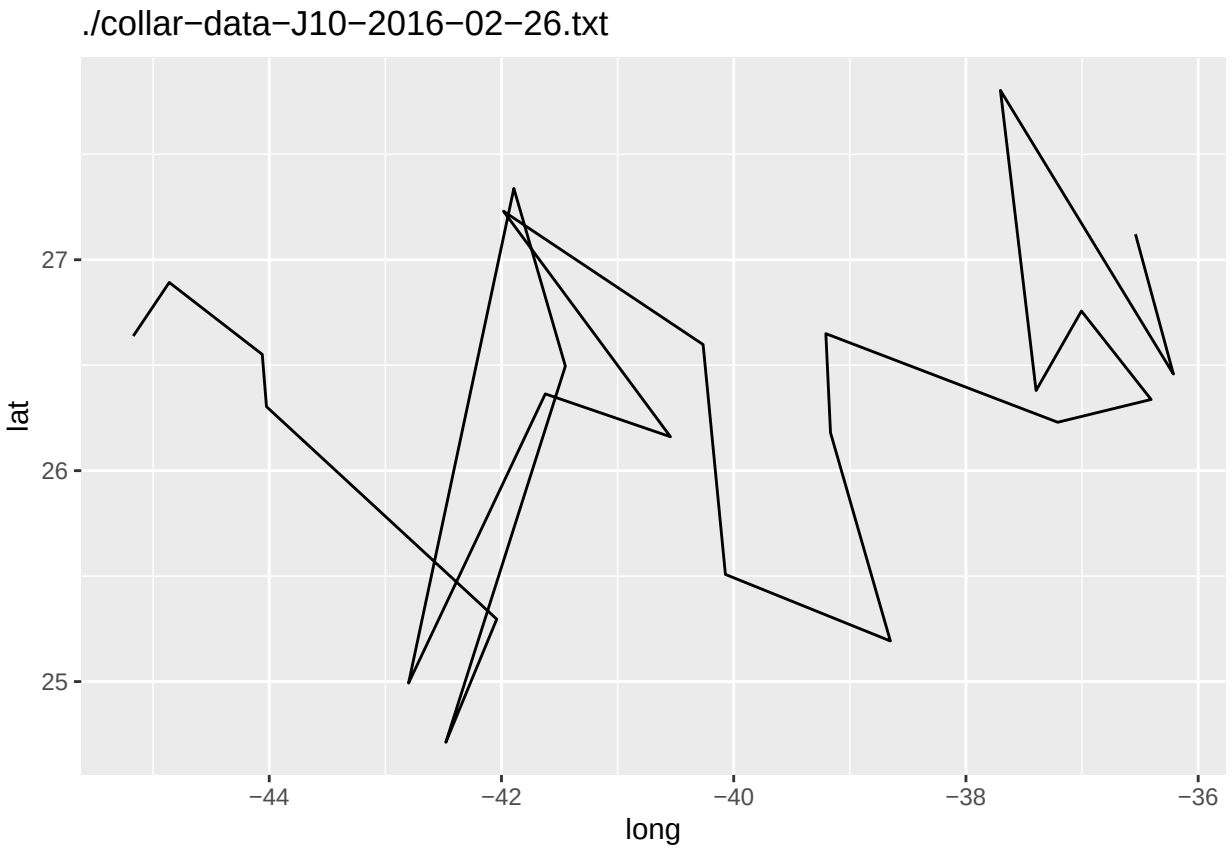
long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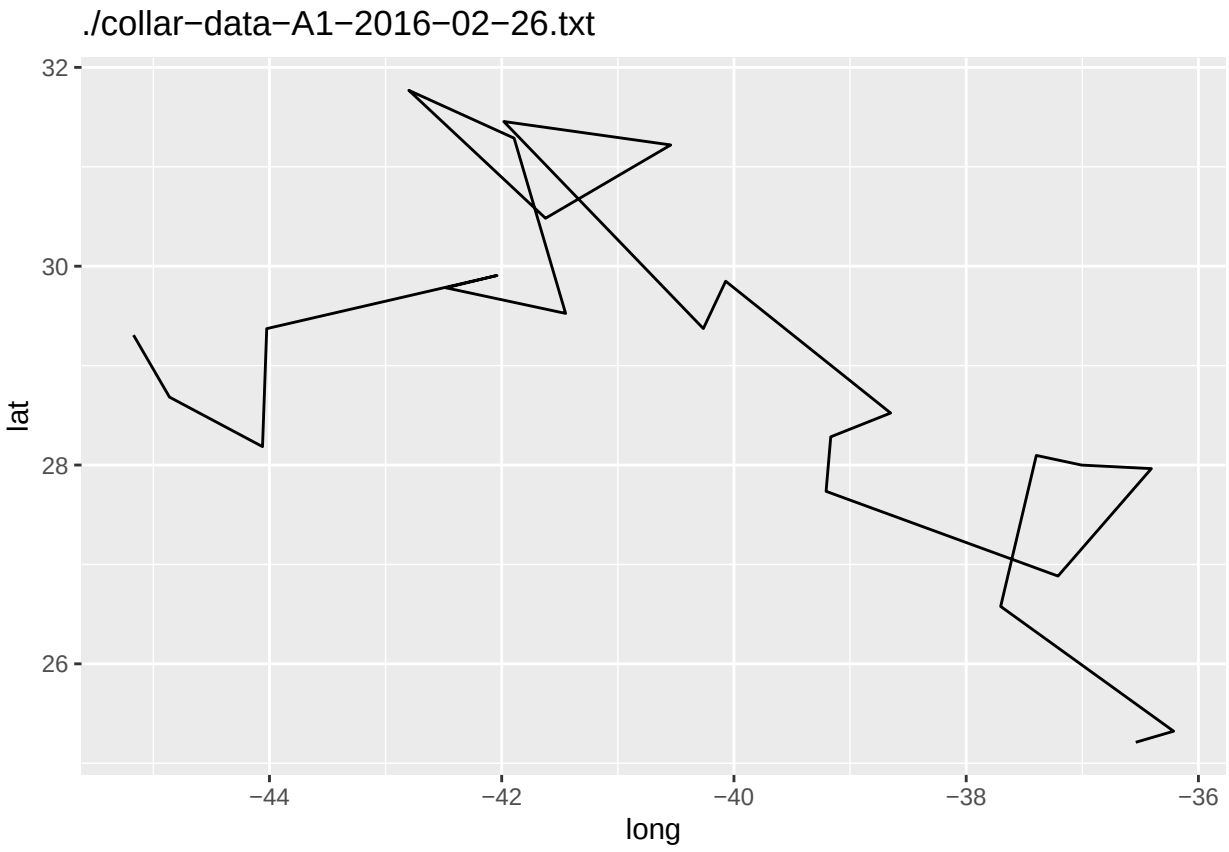
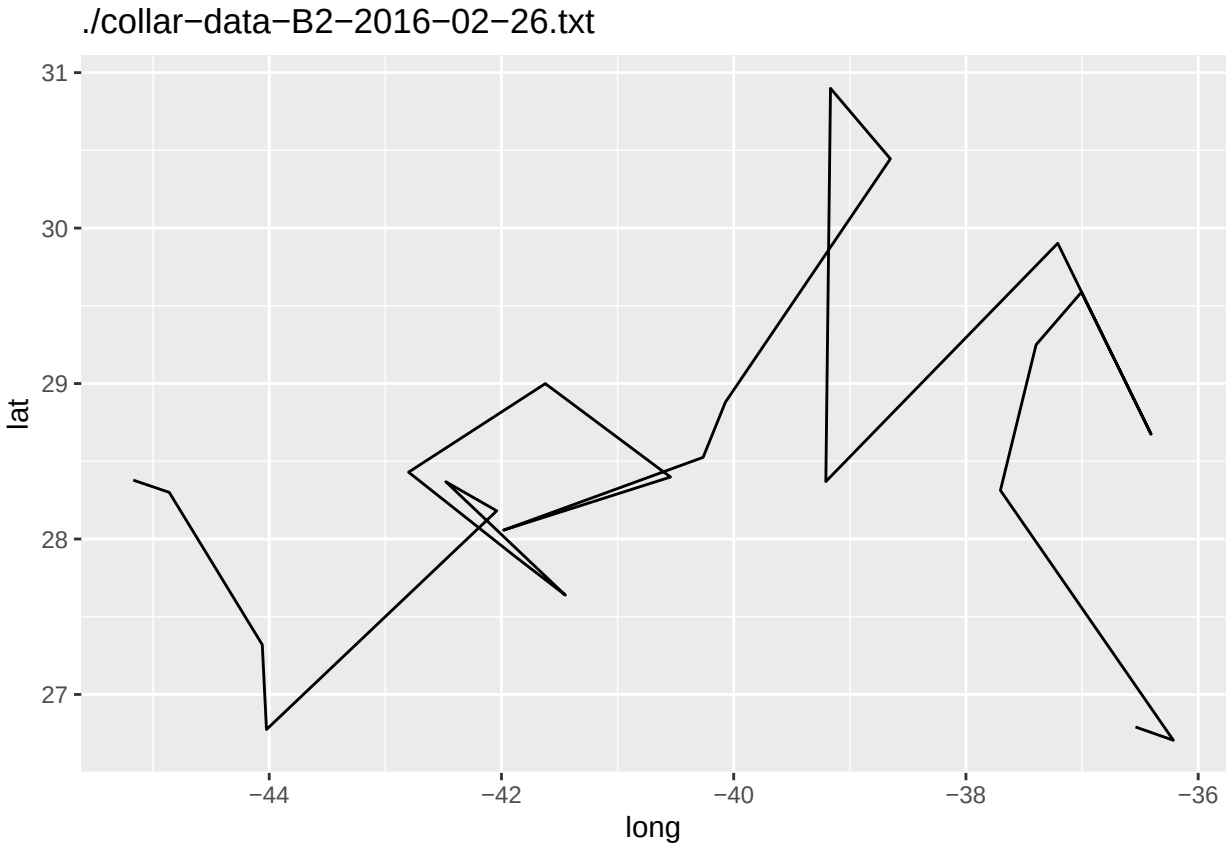
long



3b.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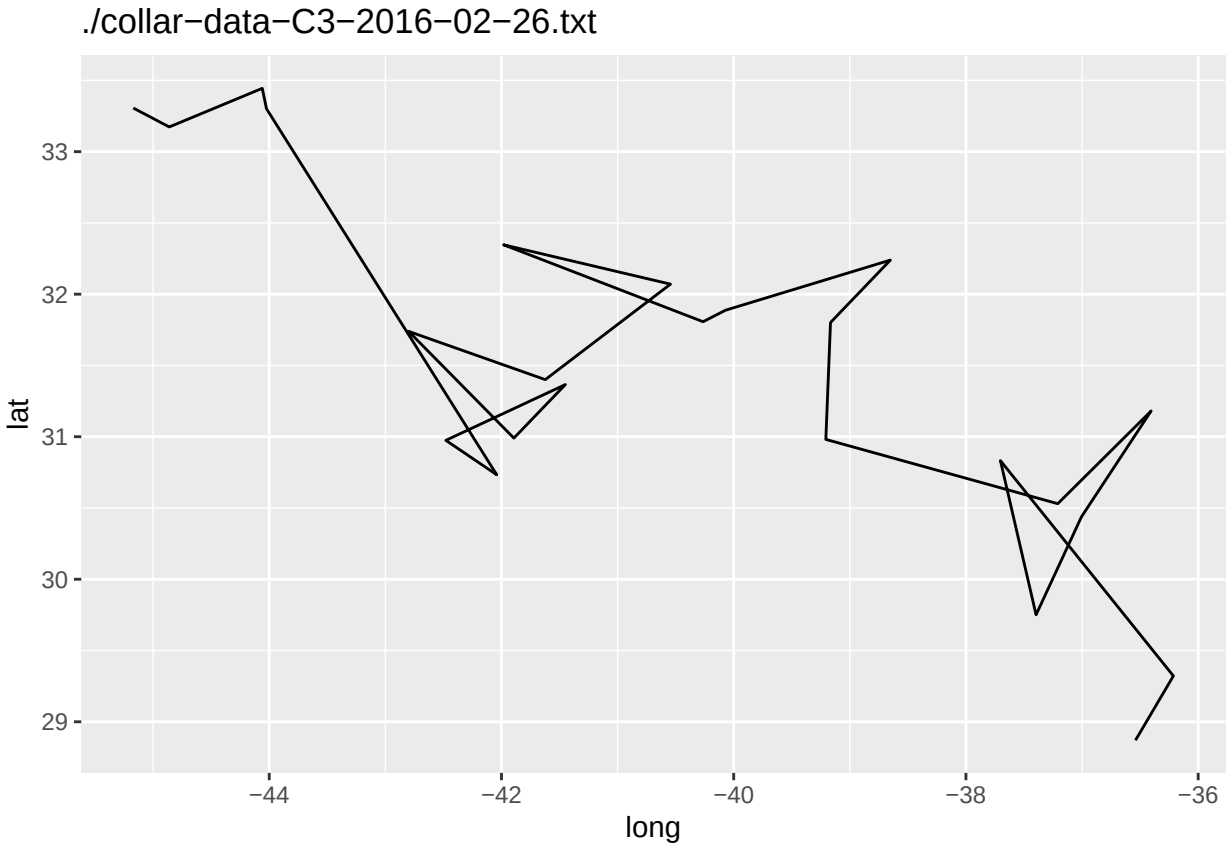
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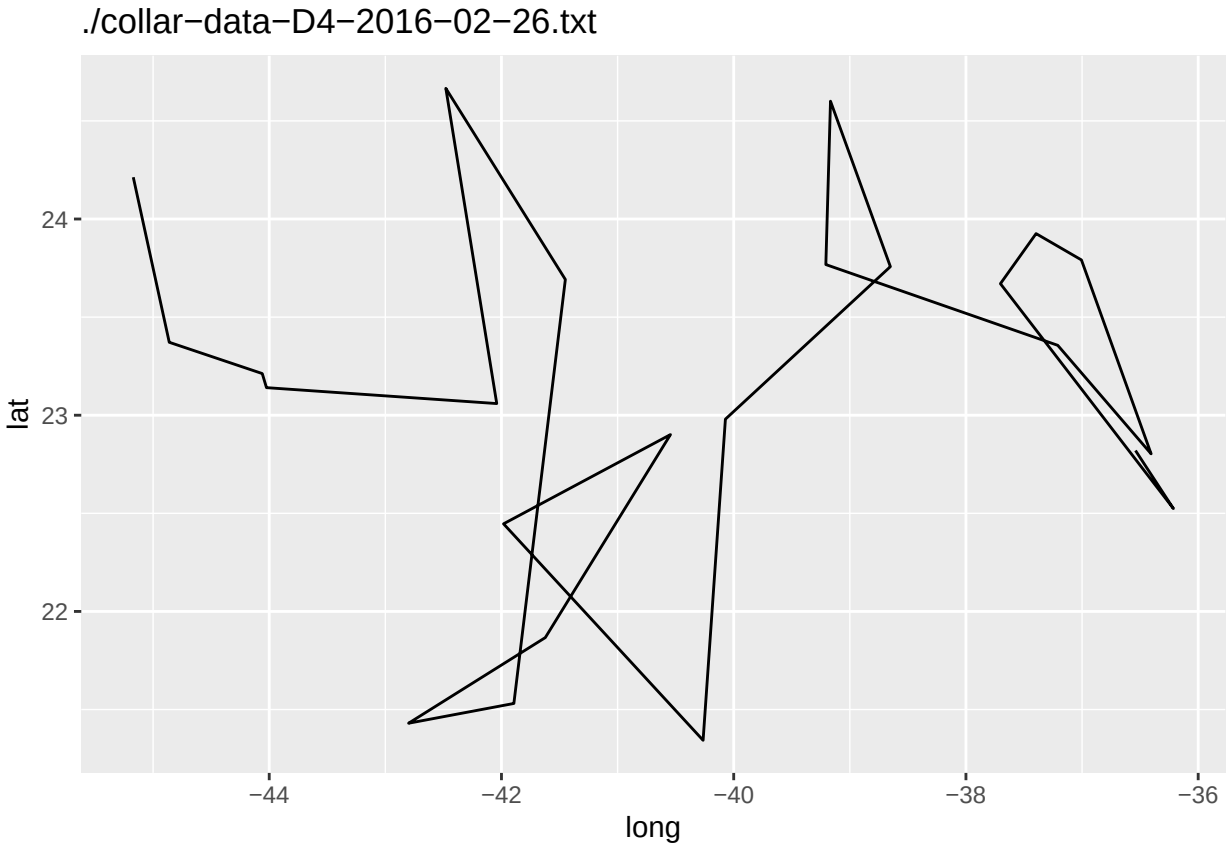
long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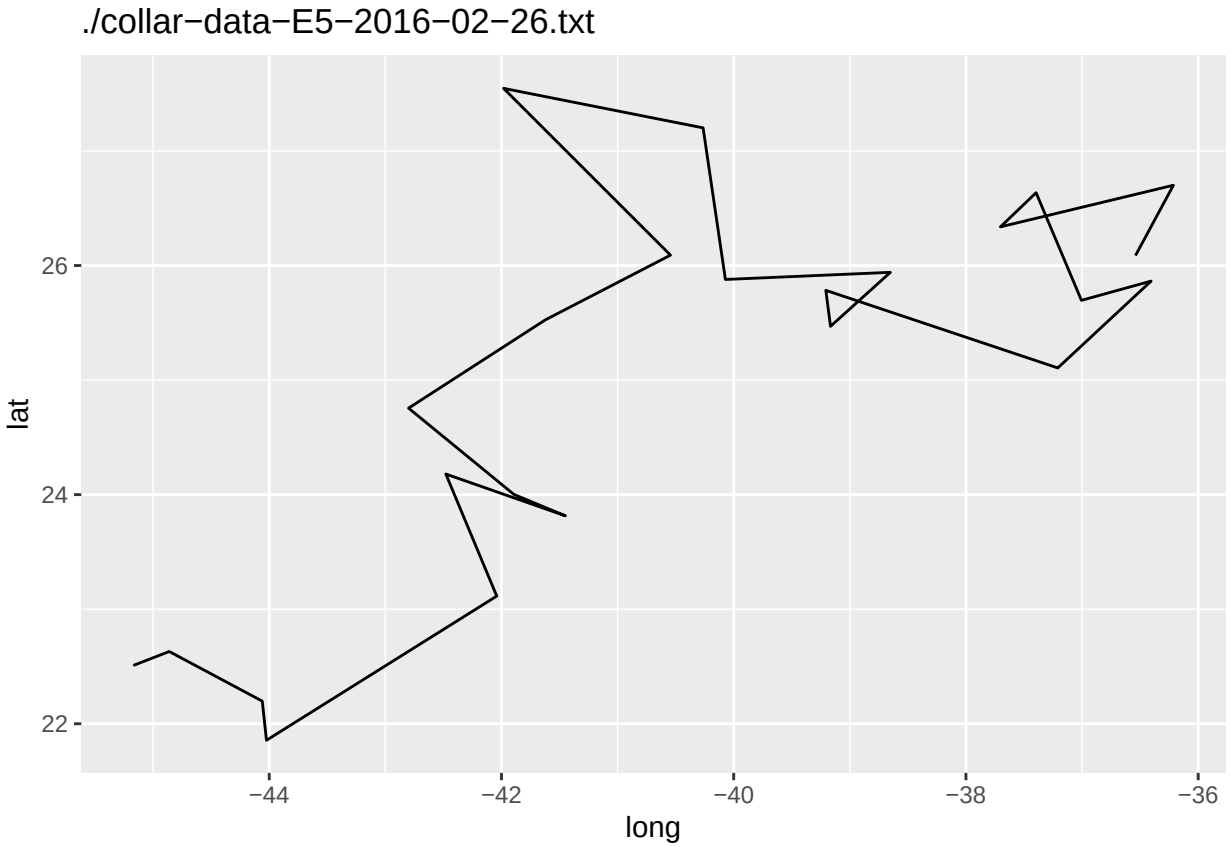
./collar−data−E5−2016−02−26.txt
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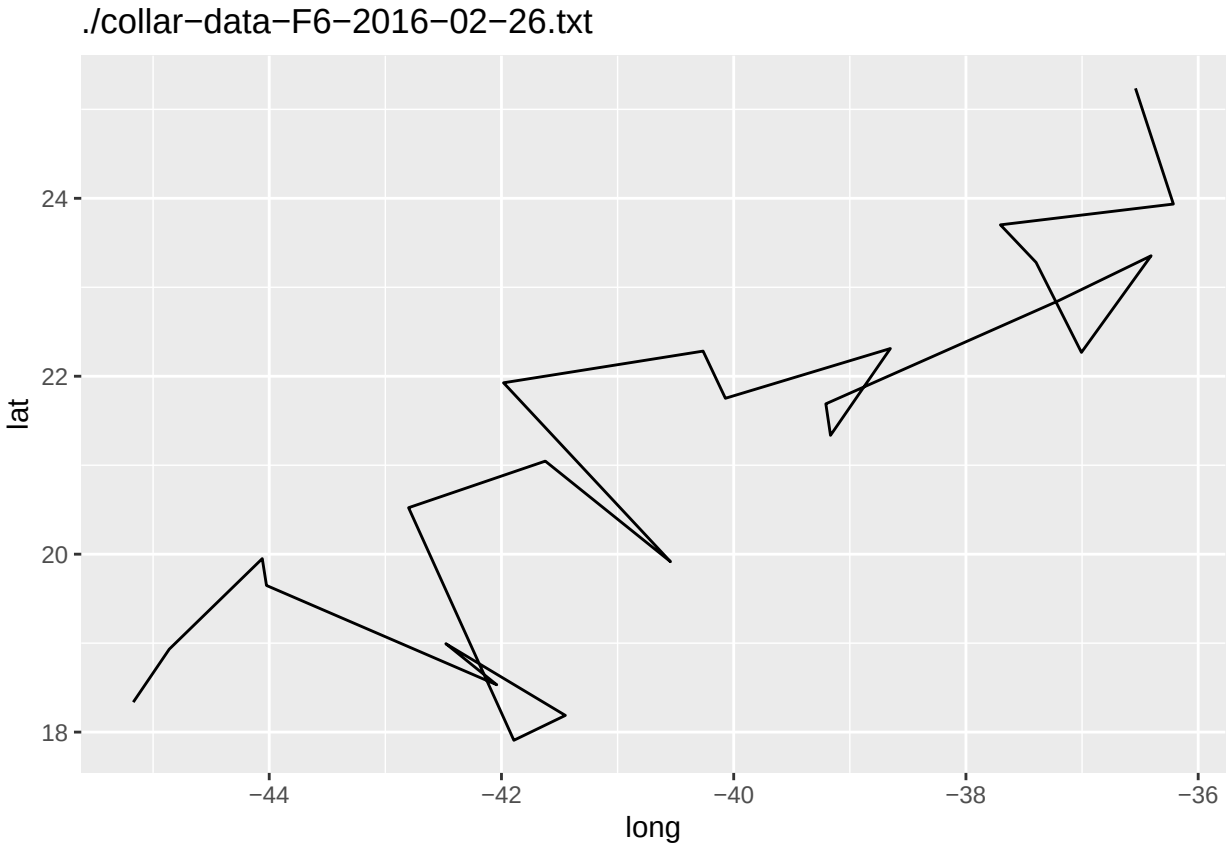
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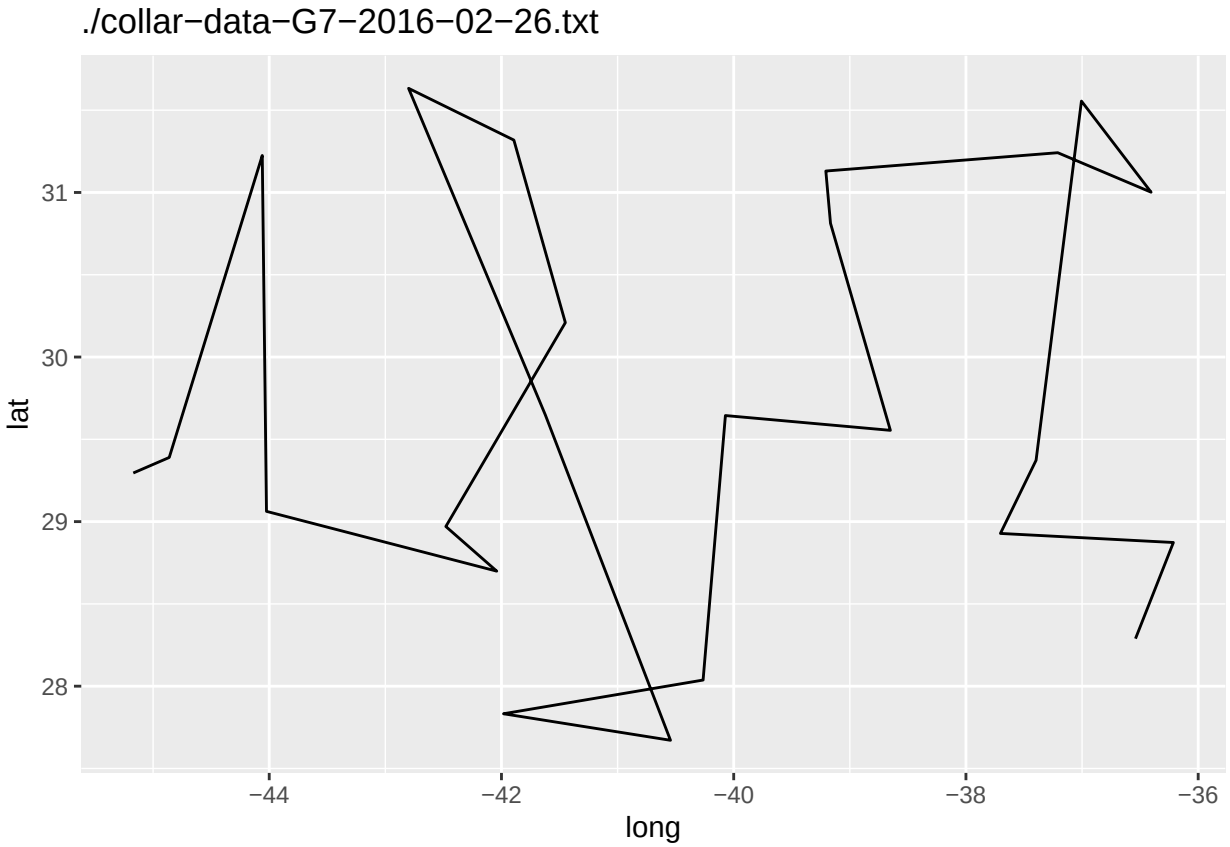
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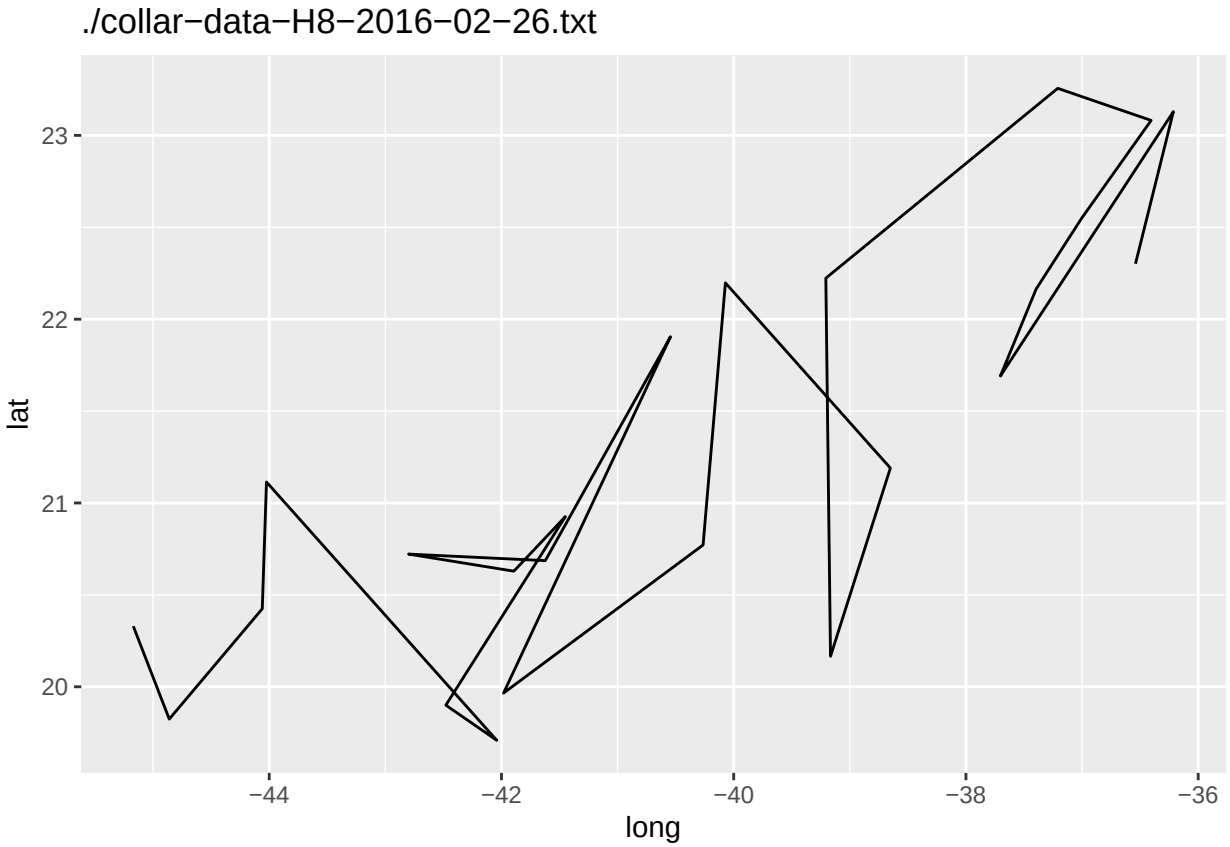
./collar−data−H8−2016−02−26.txt
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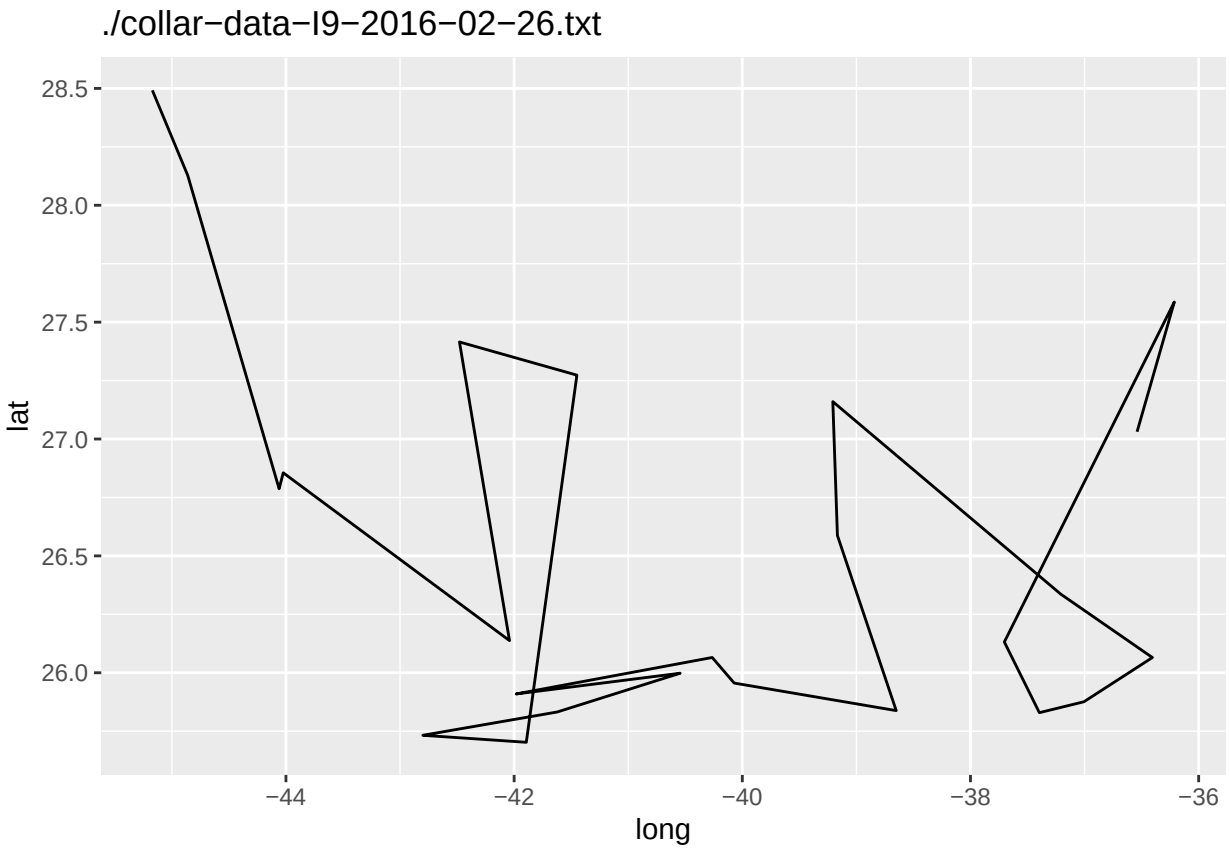
long


./collar−data−I9−2016−02−26.txt
28.5
28.0
27.5
27.0
26.5
26.0
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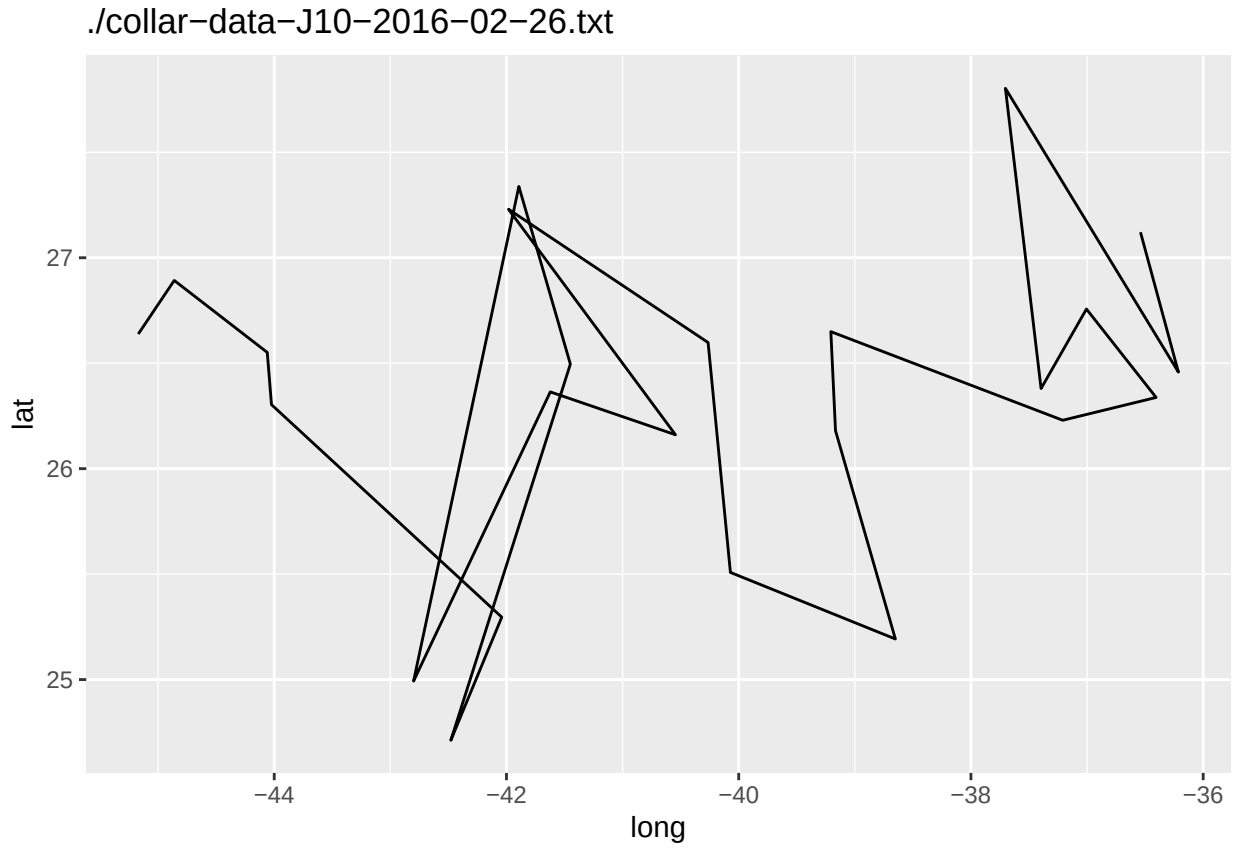
long




```
##                          file_name  max_lat  min_lat observations
## 1   ./collar-data-A1-2016-02-26.txt 31.76912 25.21080           24
## 2   ./collar-data-B2-2016-02-26.txt 30.89907 26.70509           24
## 3   ./collar-data-C3-2016-02-26.txt 33.44421 28.86998           24
## 4   ./collar-data-D4-2016-02-26.txt 24.66598 21.34315           24
## 5   ./collar-data-E5-2016-02-26.txt 27.54663 21.85565           24
## 6   ./collar-data-F6-2016-02-26.txt 25.23623 17.90788           24
## 7   ./collar-data-G7-2016-02-26.txt 31.63272 27.67120           24
## 8   ./collar-data-H8-2016-02-26.txt 23.25601 19.70875           24
## 9   ./collar-data-I9-2016-02-26.txt 28.49172 25.70252           24
## 10 ./collar-data-J10-2016-02-26.txt 27.80325 24.71200           24
```