Variation in distance between consecutive animal locations

This should be the abstract

## # A tibble: 15 x 2  
## id n  
## <fct> <int>  
## 1 1 42  
## 2 13 58  
## 3 17 7  
## 4 19 53  
## 5 20 22  
## 6 22 43  
## 7 24 10  
## 8 28 40  
## 9 29 32  
## 10 3 76  
## 11 30 48  
## 12 49 89  
## 13 5 42  
## 14 7 68  
## 15 84 79

## # A tibble: 702 x 14  
## x y date dx dy dist dt R2n abs.angle  
## <dbl> <dbl> <dttm> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 3.71e5 70029. 2003-01-16 06:15:00 286. -774. 825. 1800 0. -1.22   
## 2 3.72e5 69074. 2003-02-18 06:15:00 -434. 250. 501. 3600 0. 2.62   
## 3 3.72e5 69324. 2003-02-18 07:15:00 -83.4 104. 133. 900 2.51e5 2.25   
## 4 3.71e5 69428. 2003-02-18 07:30:00 7.94 -16.0 17.8 900 3.92e5 -1.11   
## 5 3.72e5 70041. 2002-12-20 08:00:00 -294. -765. 820. 1800 0. -1.94   
## 6 3.72e5 69833. 2003-01-20 08:00:00 -220. -12.8 220. 900 0. -3.08   
## 7 3.73e5 69700. 2003-01-22 06:30:00 -686. 201. 715. 2700 0. 2.86   
## 8 3.72e5 69901. 2003-01-22 07:15:00 -362. -353. 506. 2700 5.11e5 -2.37   
## 9 3.72e5 69548. 2003-01-22 08:00:00 -152. -81.6 173. 900 1.12e6 -2.65   
## 10 3.71e5 69466. 2003-01-22 08:15:00 241. -303. 387. 1800 1.49e6 -0.899  
## # ... with 692 more rows, and 5 more variables: rel.angle <dbl>, id <fct>,  
## # burst <chr>, pkey <chr>, fam\_g <chr>

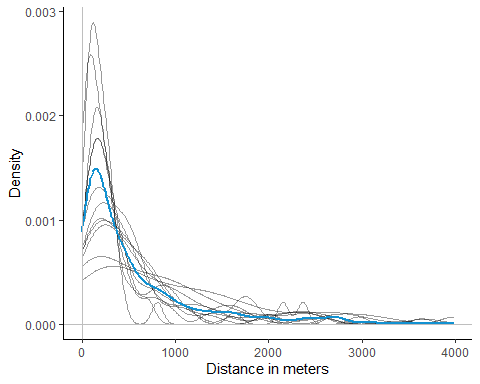
# Questions

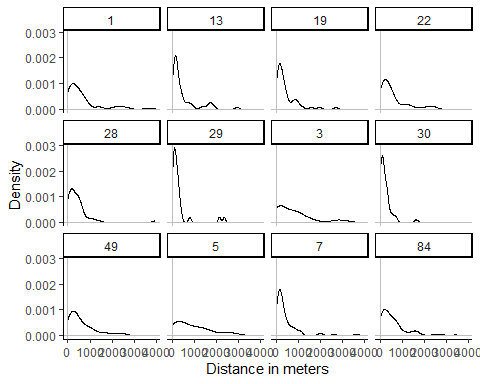
* What is the distribution of distances between consecutive recorded locations?
* Are there differences between individuals or can we use the same distribution to describe these distances between two locations?

The reasoning behind this, is that distances between locations can be used later on to describe variation in step length when simulating animal movement under simple models such as random walk.

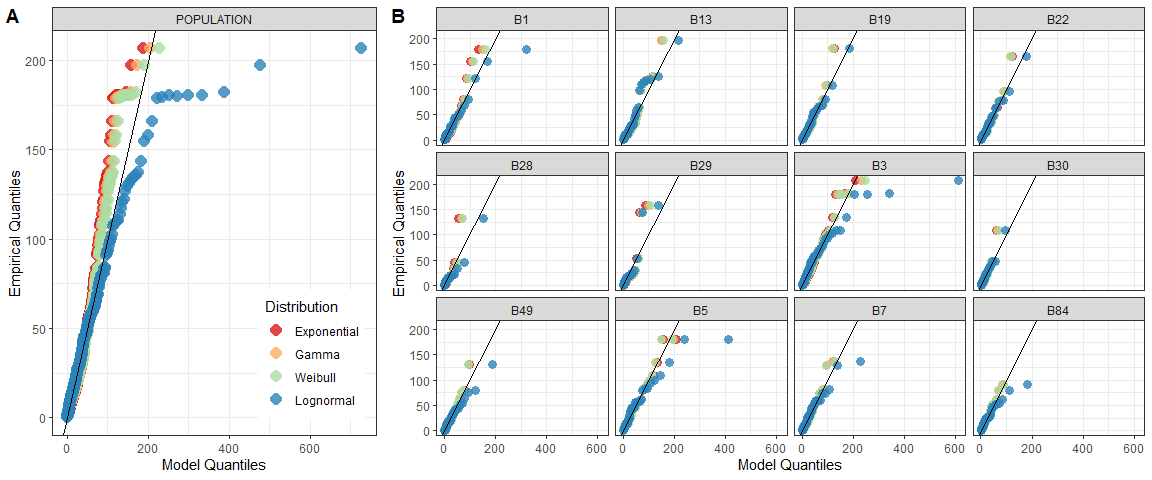
### I’ll go first with just the distances between locations, might switch to net displacement or net squared displacement later.

**Visualize the variation and distribution of these distances between locations**





# Fit distribution



# References