Visualizing Pangolin Uncertainty (a.k.a. Pangoluncertainty)

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```
library(here)
library(ggplot2)
library(dplyr)
```

Goal

Visualize/summarize the results of sending resampled uncertainty matrices through pangolin.

Vis Setup

Each row in the dataset represents a single sample from one uncertainty matrix (only dealing with one accession number for now). The columns are as follows:

- taxon: the accession name, followed by ".0" for the consensus sequence and "0.1" to "0.1000" for the 1,000 samples from the matrix.
- lineage: The called lineage from pangolin
- probability: the bootstrap support for this lineage call
- pangoLEARN_version, status, and note: extra info from pangolin

```
unc1 <- read.csv(here("data/pangolineages/", "ERR4085809_pangolineages.csv"))
head(unc1)</pre>
```

```
##
             taxon lineage probability pangoLEARN_version
                                                             status note
## 1 _ERR4085809.0
                       B.1
                                               2021-02-21 passed_qc
                                    1
## 2 _ERR4085809.1
                       A.2
                                     1
                                               2021-02-21 passed_qc
                                                                      NA
## 3 _ERR4085809.2
                         В
                                     1
                                               2021-02-21 passed_qc
                                                                      NA
## 4 _ERR4085809.3
                         В
                                     1
                                               2021-02-21 passed_qc
                                                                      NA
## 5 ERR4085809.4 B.1.98
                                     1
                                               2021-02-21 passed qc
                                                                      NA
## 6 ERR4085809.5
                                               2021-02-21 passed_qc
                                                                      NA
```

To prep the data, I calculate another column called ""