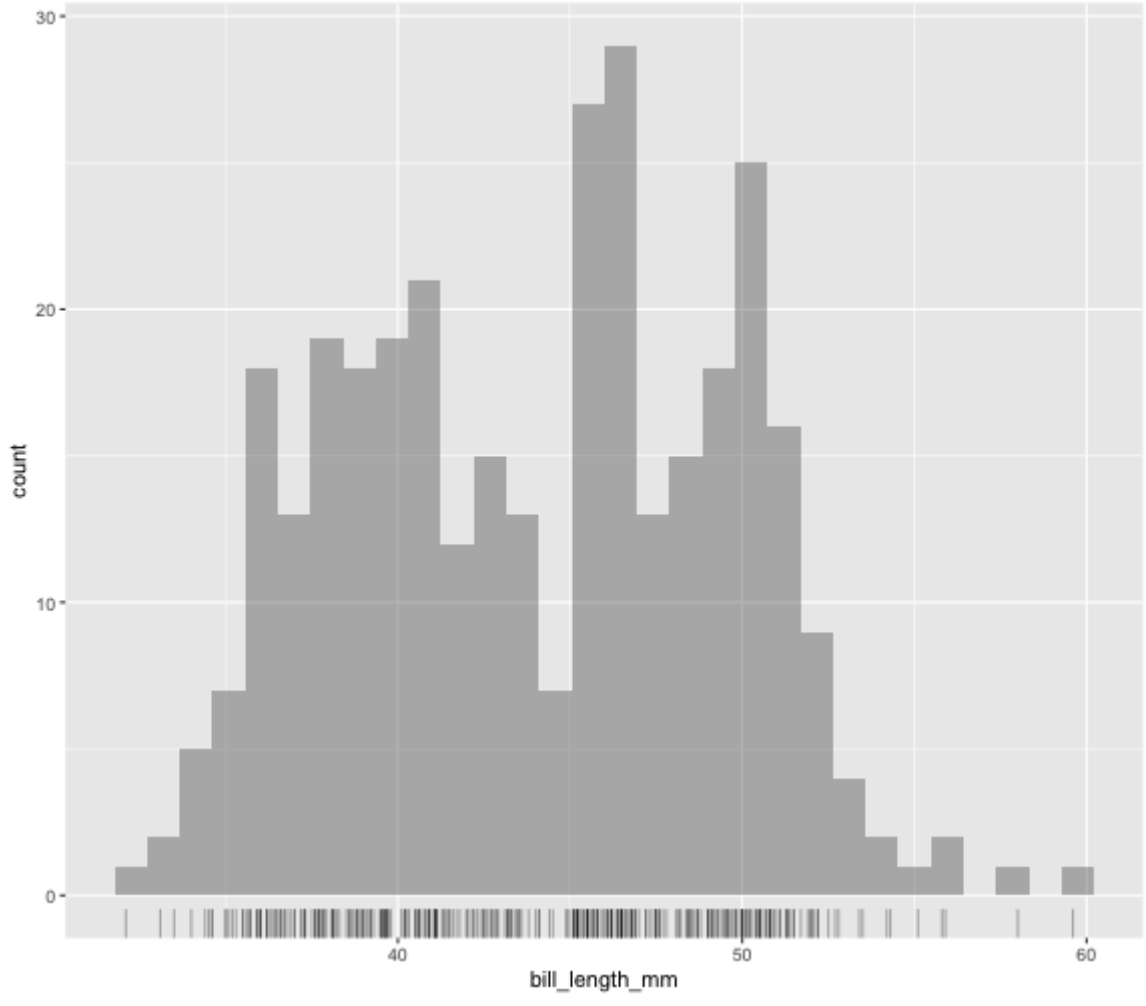
Photo credit: Hans Veth

viz the mean and conditional means

```r
library(tidyverse)
library(ggxmean)
palmerpenguins::penguins %>%
  drop_na() %>%
  ggplot() +
  aes(x = bill_length_mm) +
  geom_rug(alpha = .3) +
  geom_histogram(alpha = .4)
```



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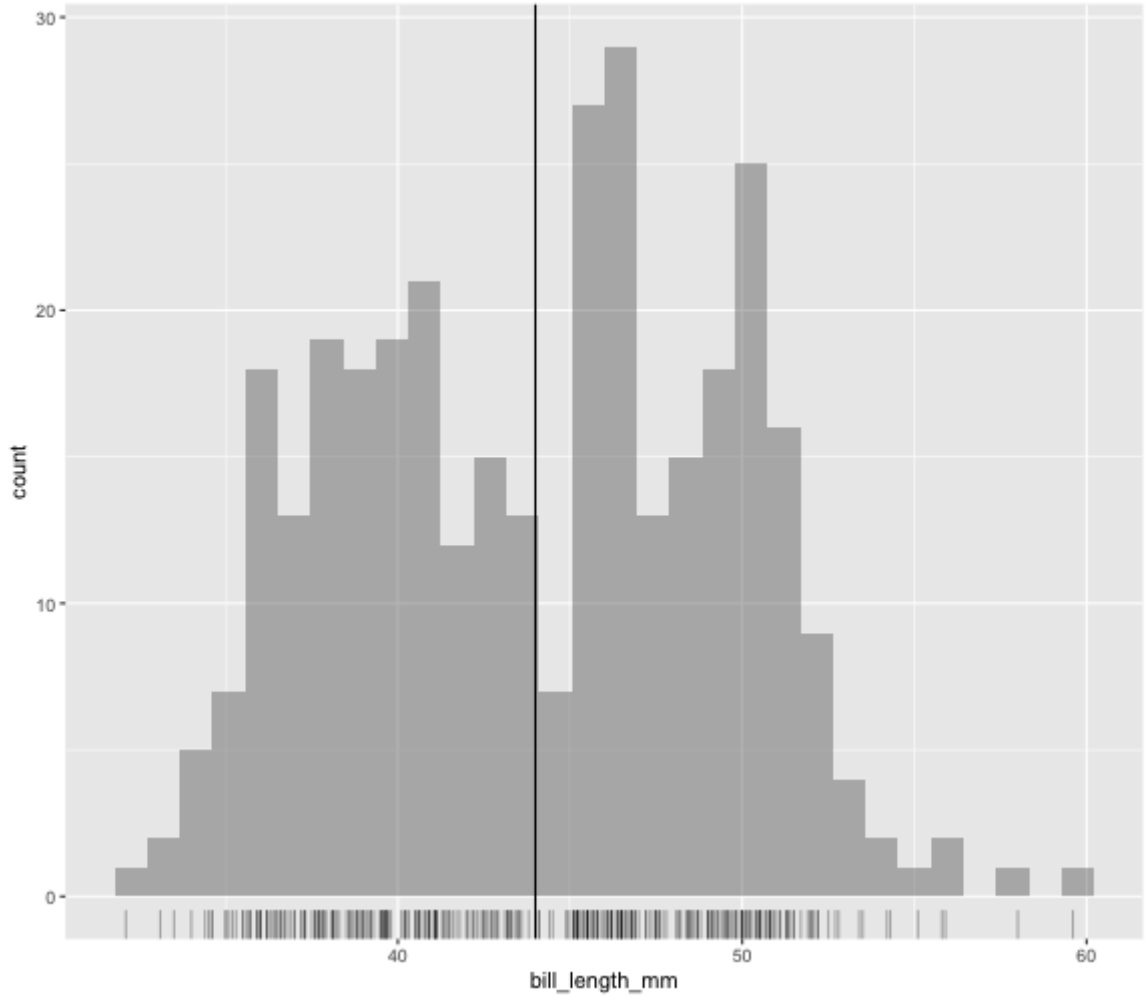

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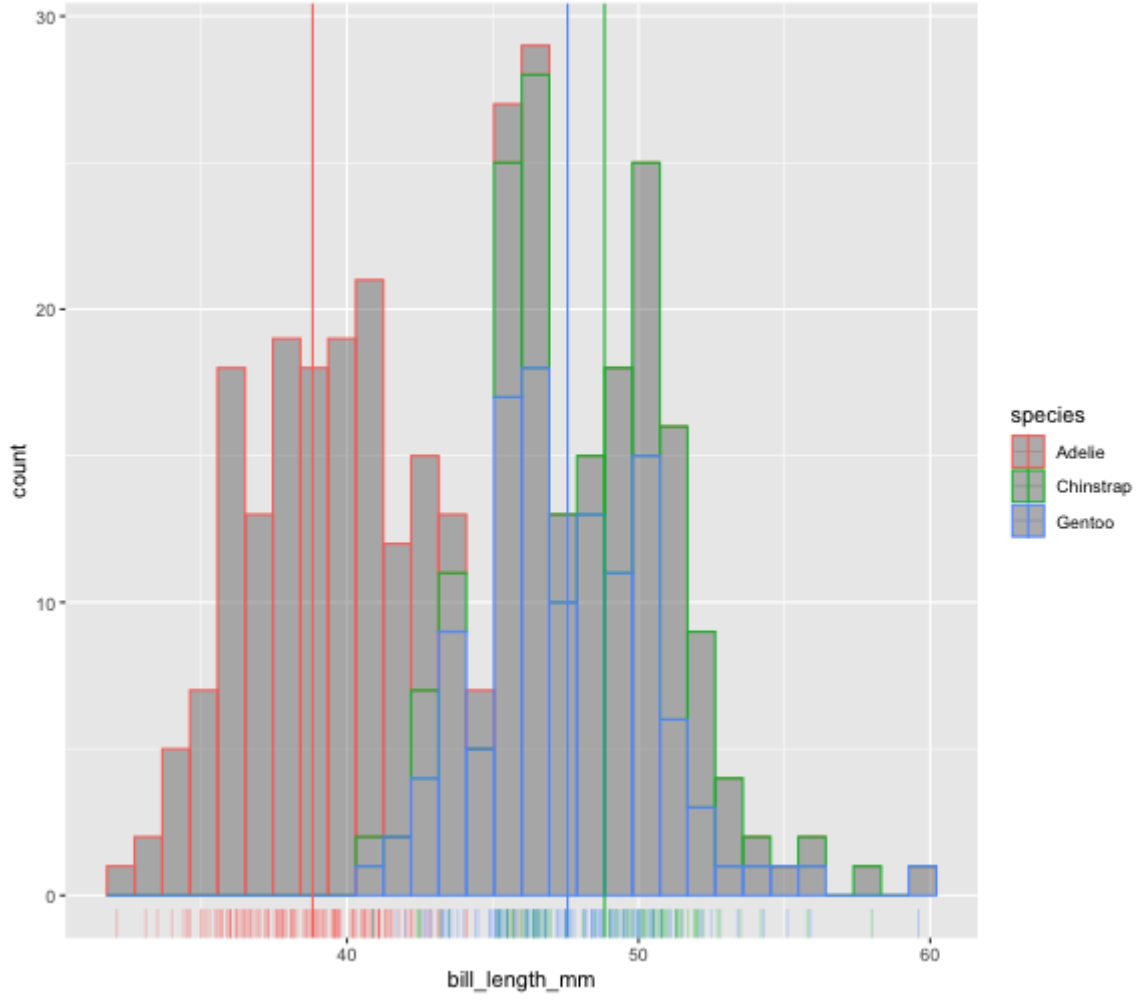

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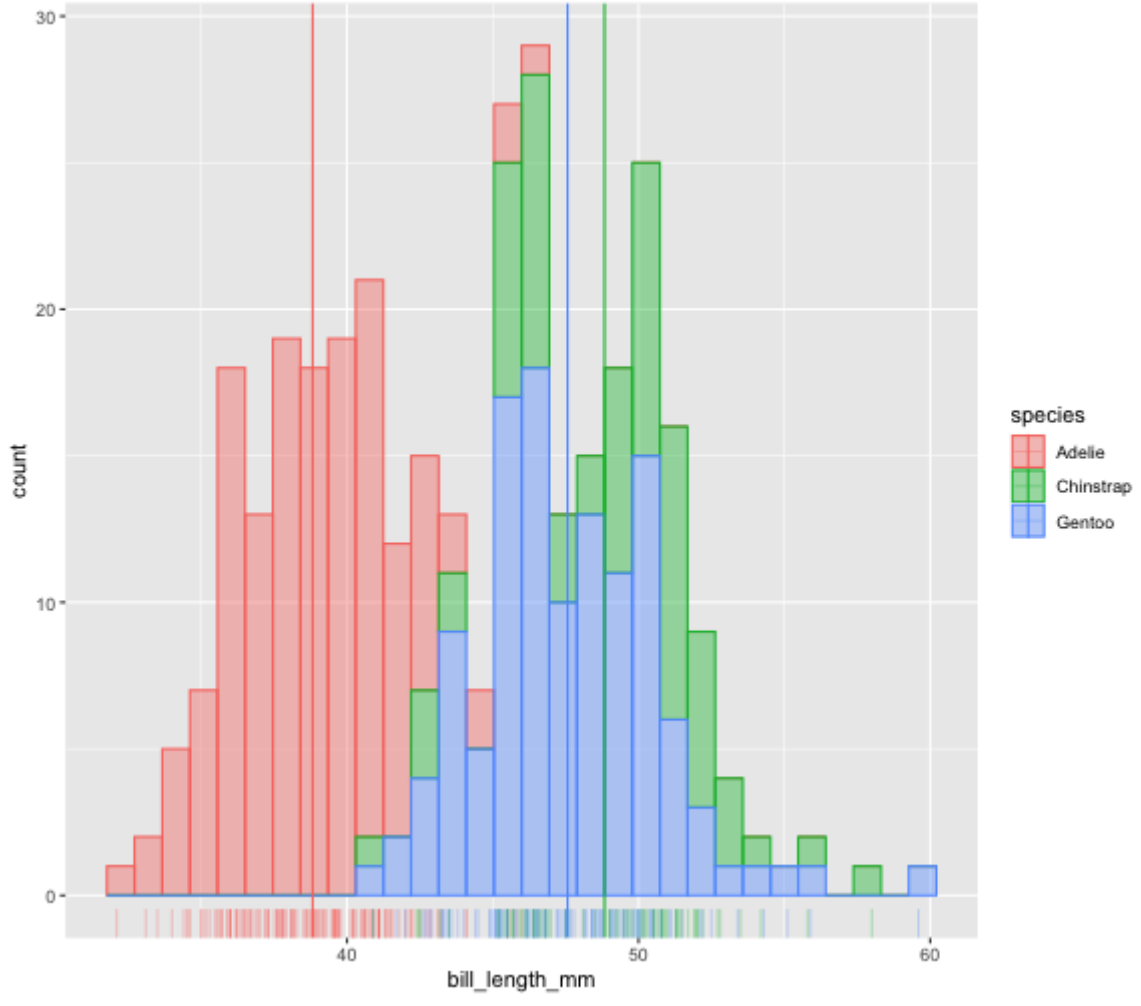

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  facet_grid(rows = vars(species))
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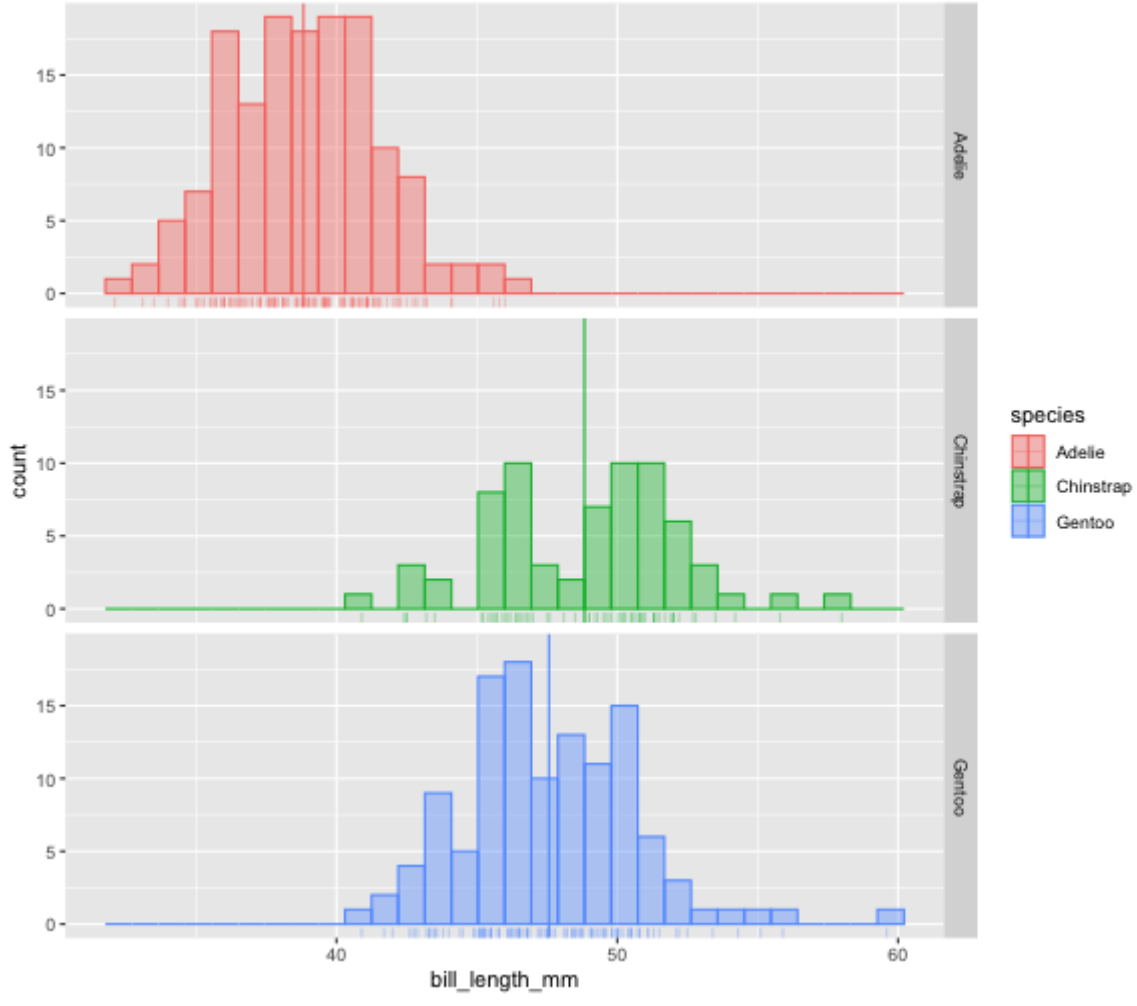

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  facet_grid(rows = vars(species)) +
  facet_grid(rows = vars(species, sex))
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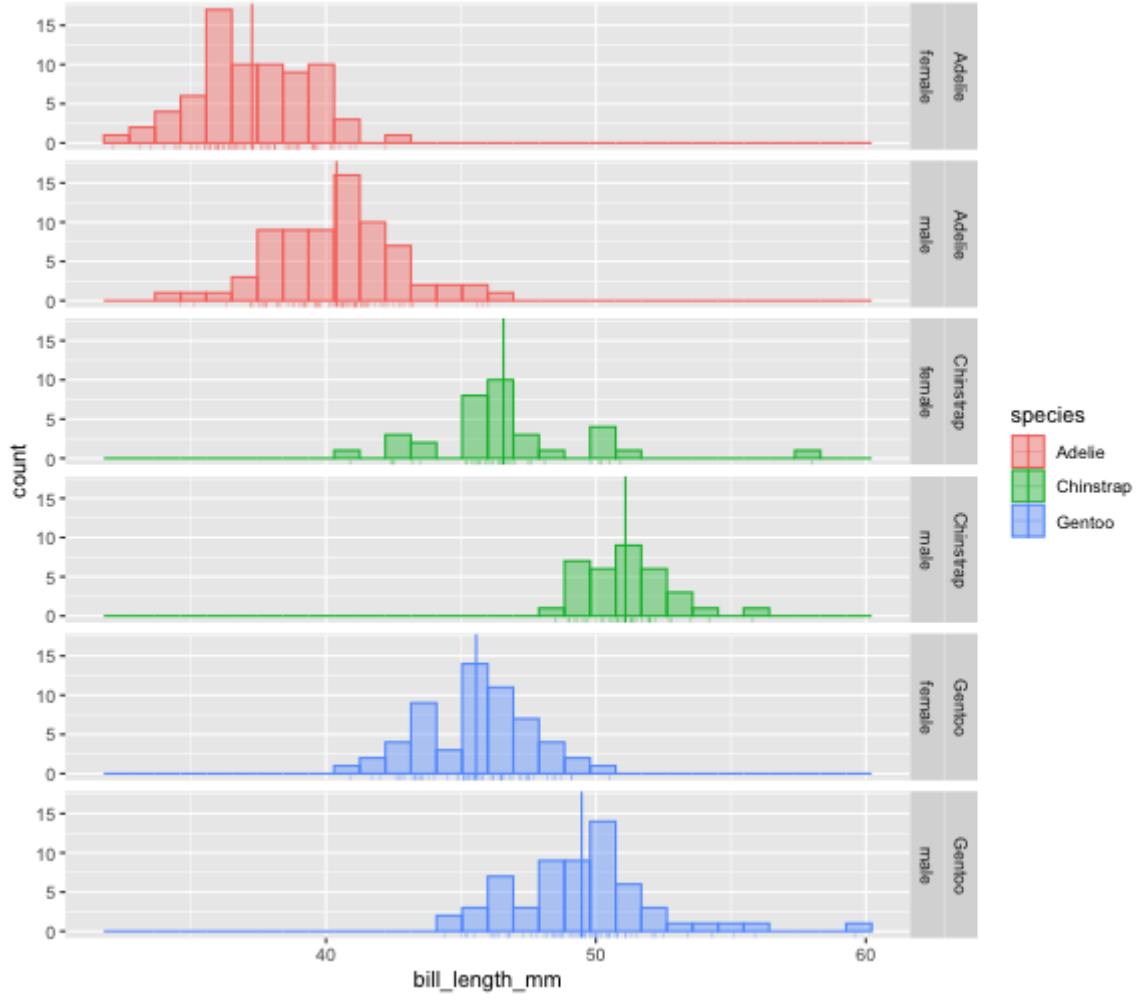

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  facet_grid(rows = vars(species)) +
  facet_grid(rows = vars(species, sex)) +
  geom_rug(alpha = .6)
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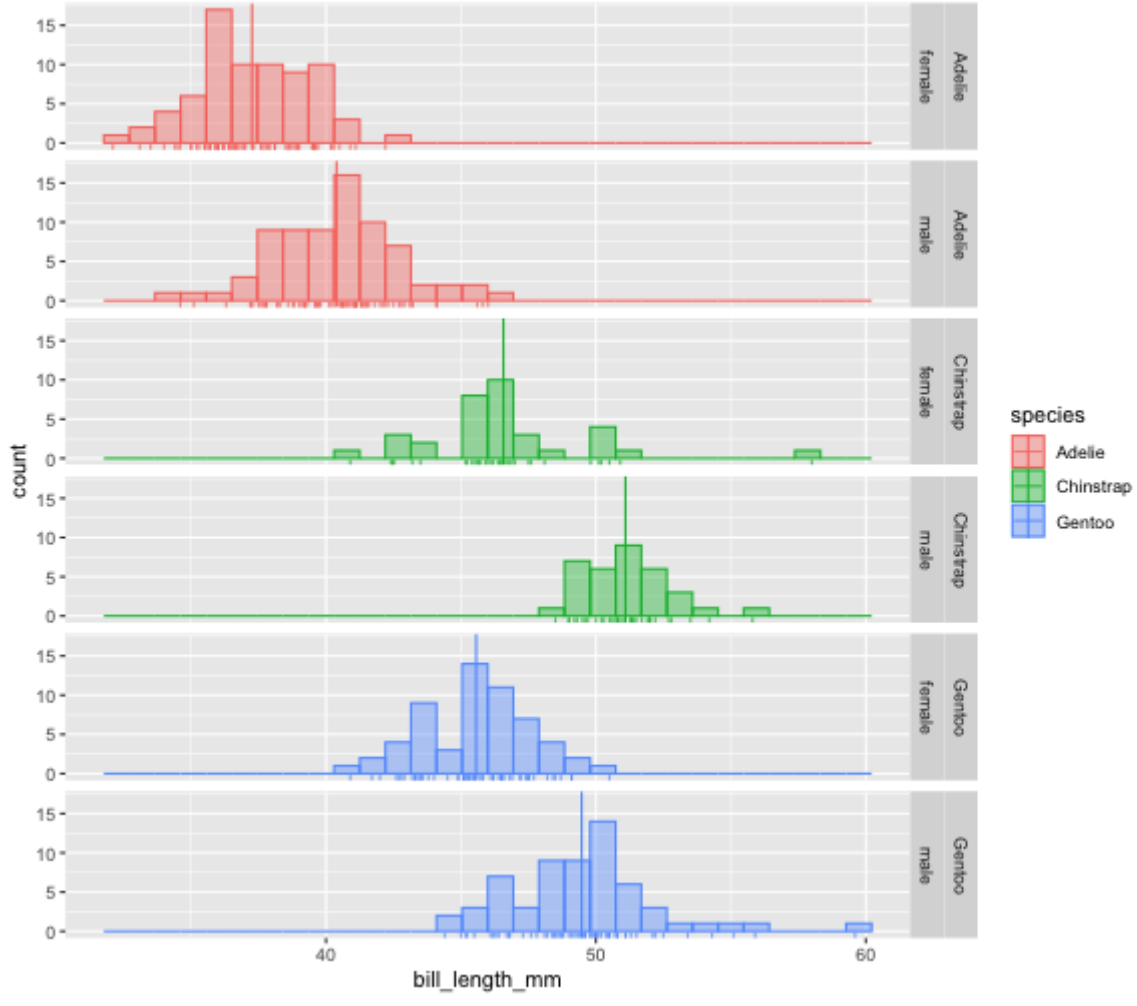

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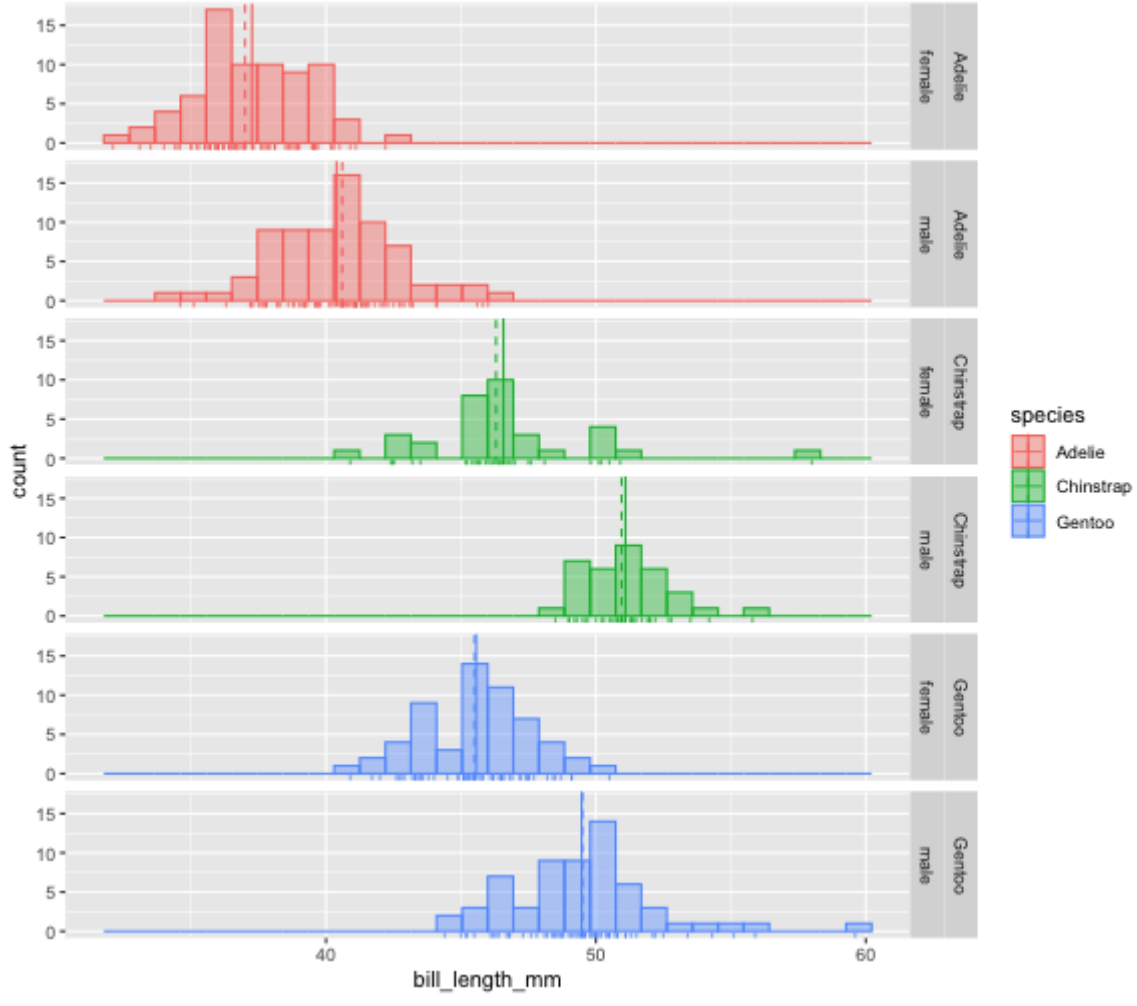
  geom_rug(alpha = .6) +
  geom_x_quantile(quantile = .5,
                  linetype = "dashed")
```



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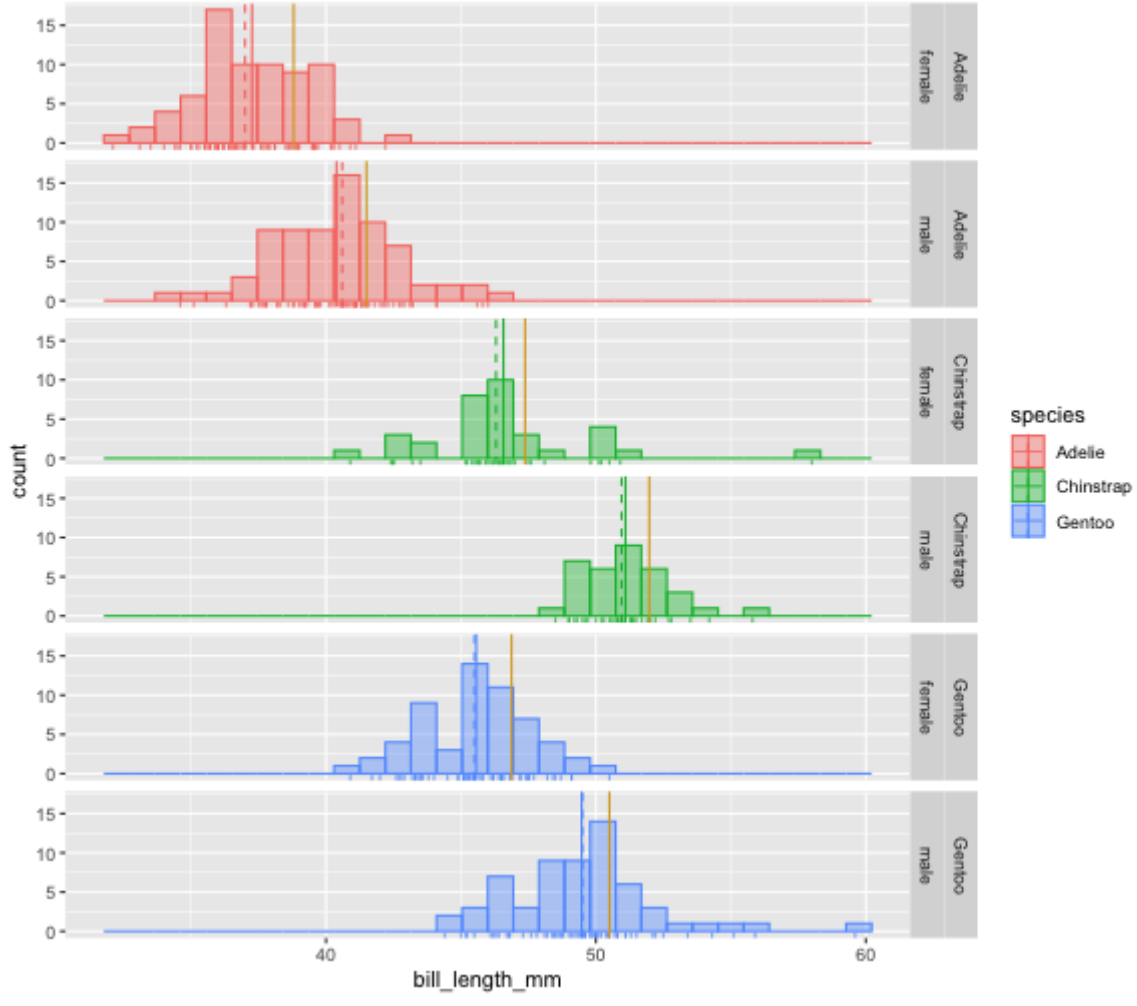
  geom_x_percentile(percentile = 75,
                    color = "goldenrod")
```



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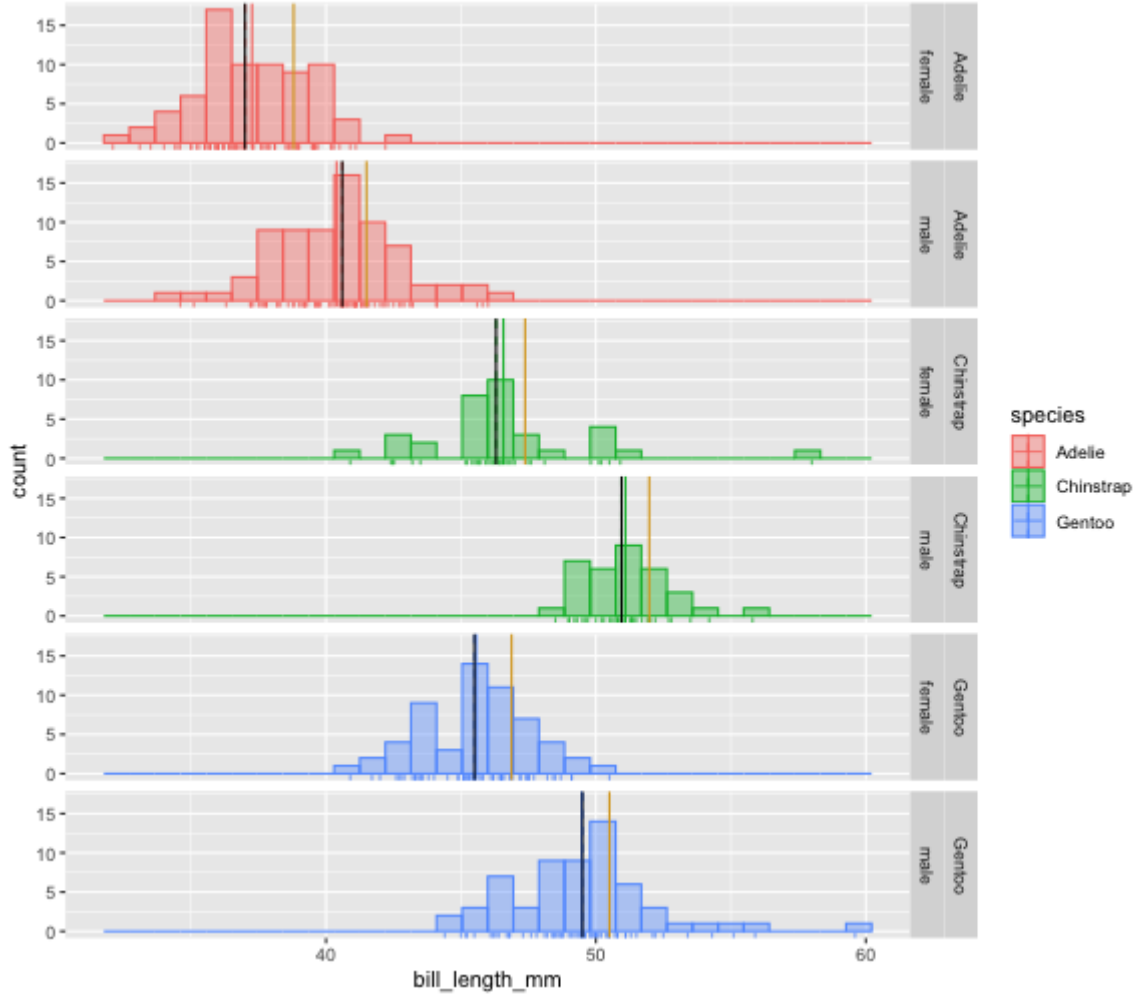
                  linetype = "dashed") +
  geom_x_percentile(percentile = 75,
                    color = "goldenrod") +
  geom_x_median(color = "black")
```



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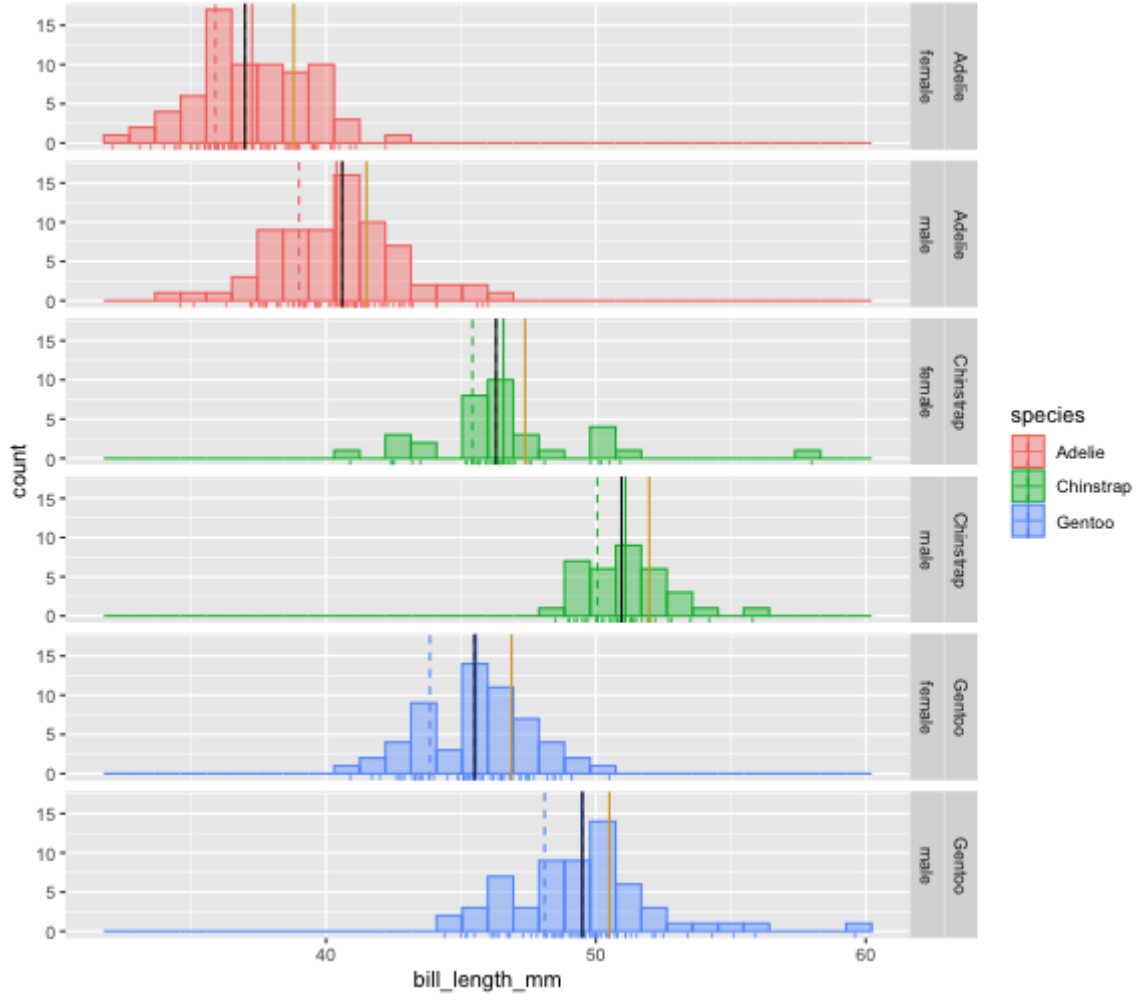
                  linetype = "dashed") +
  geom_x_percentile(percentile = 75,
                    color = "goldenrod") +
  geom_x_median(color = "black") +
  geom_x_quantile(quantile = .25, linetype = "dashed
```



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                    color = "goldenrod") +
  geom_x_median(color = "black") +
  geom_x_quantile(quantile = .25, linetype = "dashed
  geom_boxplot(y = 0,
               width = 3,
               fill = "white",
               color = "black")
```