

# ANOVA and Random Effects Models

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## Repeated Measurements

- ▶ Same characteristics (Body Weight, BC, ...) measured multiple times for the same animal

Animal	Breast Circumference	Body Weight
2	177.0000	463.0000
2	177.3129	468.8940
2	177.3292	467.8753
5	179.0000	496.0000
5	178.6501	495.0033
5	178.7485	493.6563
7	181.0000	518.0000
7	180.9819	509.3221

- ▶ Column `Animal` no longer just a counter, it becomes a model factor

# Properties

- ▶ What is the benefit of repeated measurements?
- ▶ Equivalent to more animals in the dataset?
- ▶ Assumption: repeated observations of the same animal are more “similar”
- ▶ No longer independence of observations

# Data Scatterplot

