# Barnswallow Body Mass Or Size and Feedings Rate

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# Hypothesis

Alternate hypothesis:

The mass or body size of Barn swallows will affect their feeding rate.

Null hypothesis:

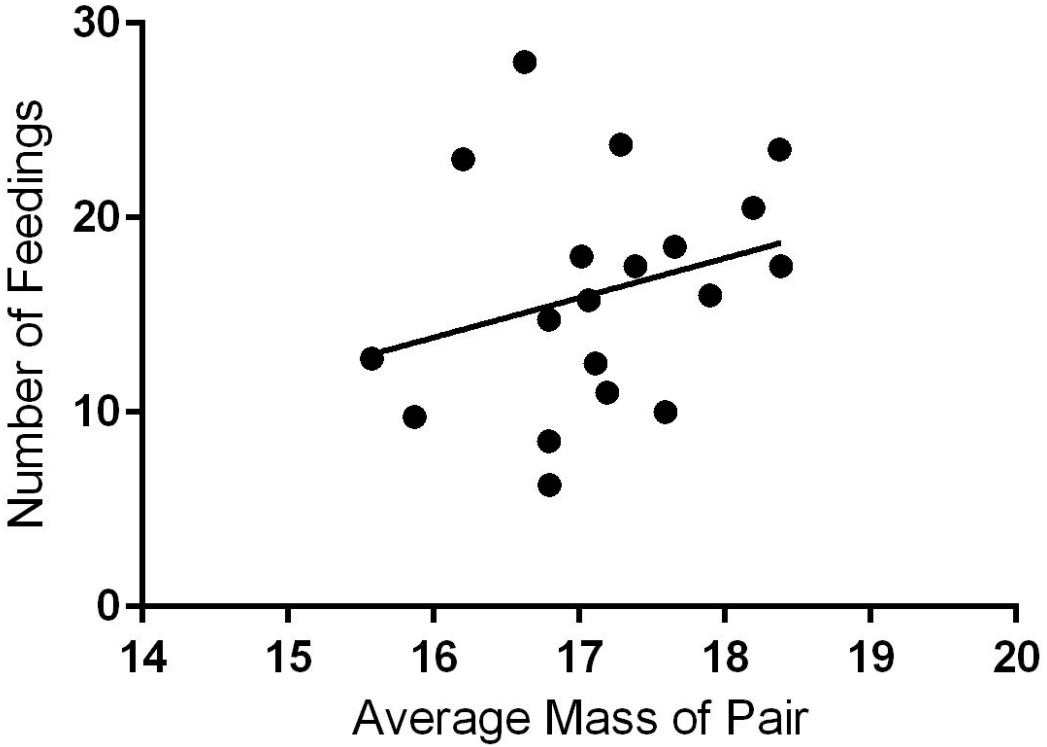
The mass or body size of barn swallows does not affect their feeding rate.

# Variables

Independent Variable: Average mass of barn swallow pair

Dependent Variable: Number of feedings (feeding rate)

Controlled variable: the number of the nest and its location. Also 30 minutes were cut from the video so that the birds can get used to the camera.




X-axis : Average mass of barn swallow pair

Y-axis: number of feedings (feedings rate)

P value= 0.2626~0.23

$r^2$= .07320

r=0.85556~0.86

# Conclusion

We reject our alternate hypothesis and accept the null hypothesis because the p value is greater than 0.005.

Hence body mass or body size does not influence the feeding rate of barn swallows.

From the $r^2$ value we know that there is a 73% variation in the feedings rate.