

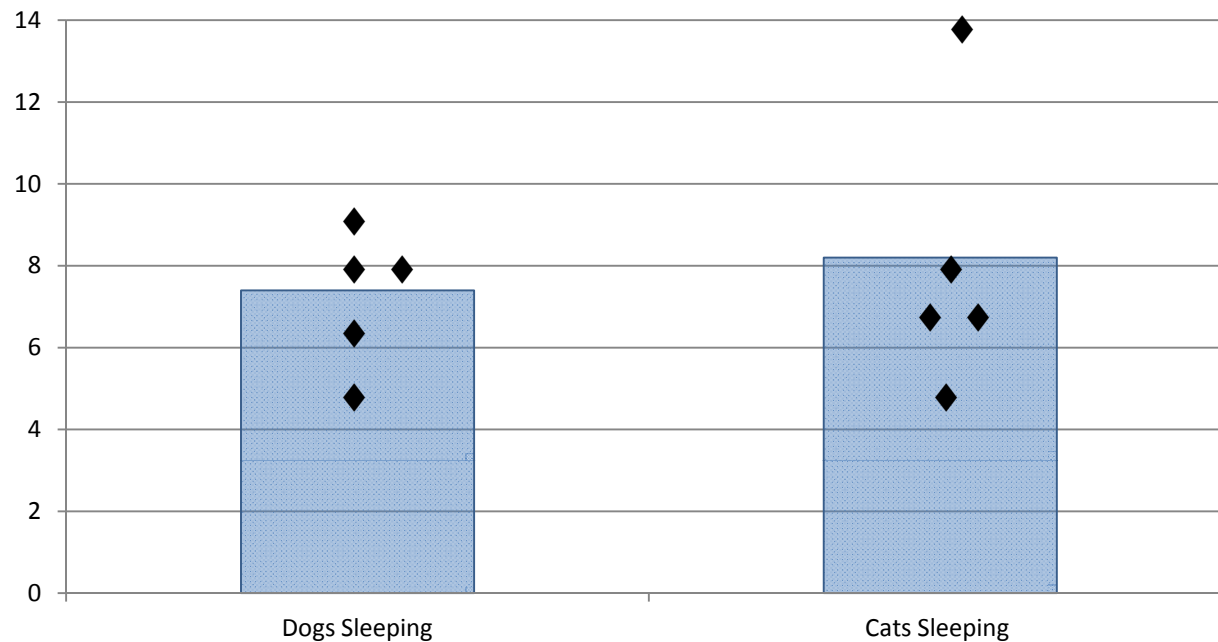
Variability and Mayfly Data

Using “Hedging Language”

- In writing, hedging is the use of cautious language to make noncommittal or vague statements.

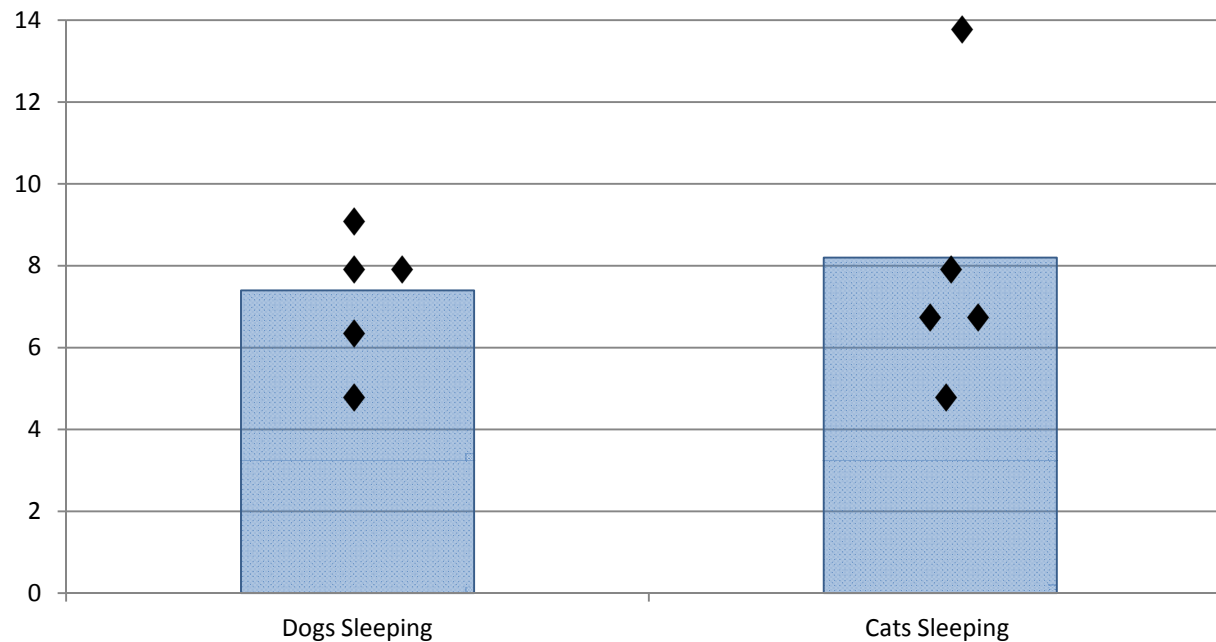
“Well, it depends...”

Comparing Sleep for Cats and Dogs



On average, it looks as if dogs sleep a bit less than cats. However, in the sample population, one cat slept a lot more than the other cats, and this might have affected the average for cats more than it should have. Given the influence that one cat might have had on the overall average sleep for cats, it is possible that there is very little difference in the averages of how much cats and dogs sleep.

Comparing Sleep for Cats and Dogs

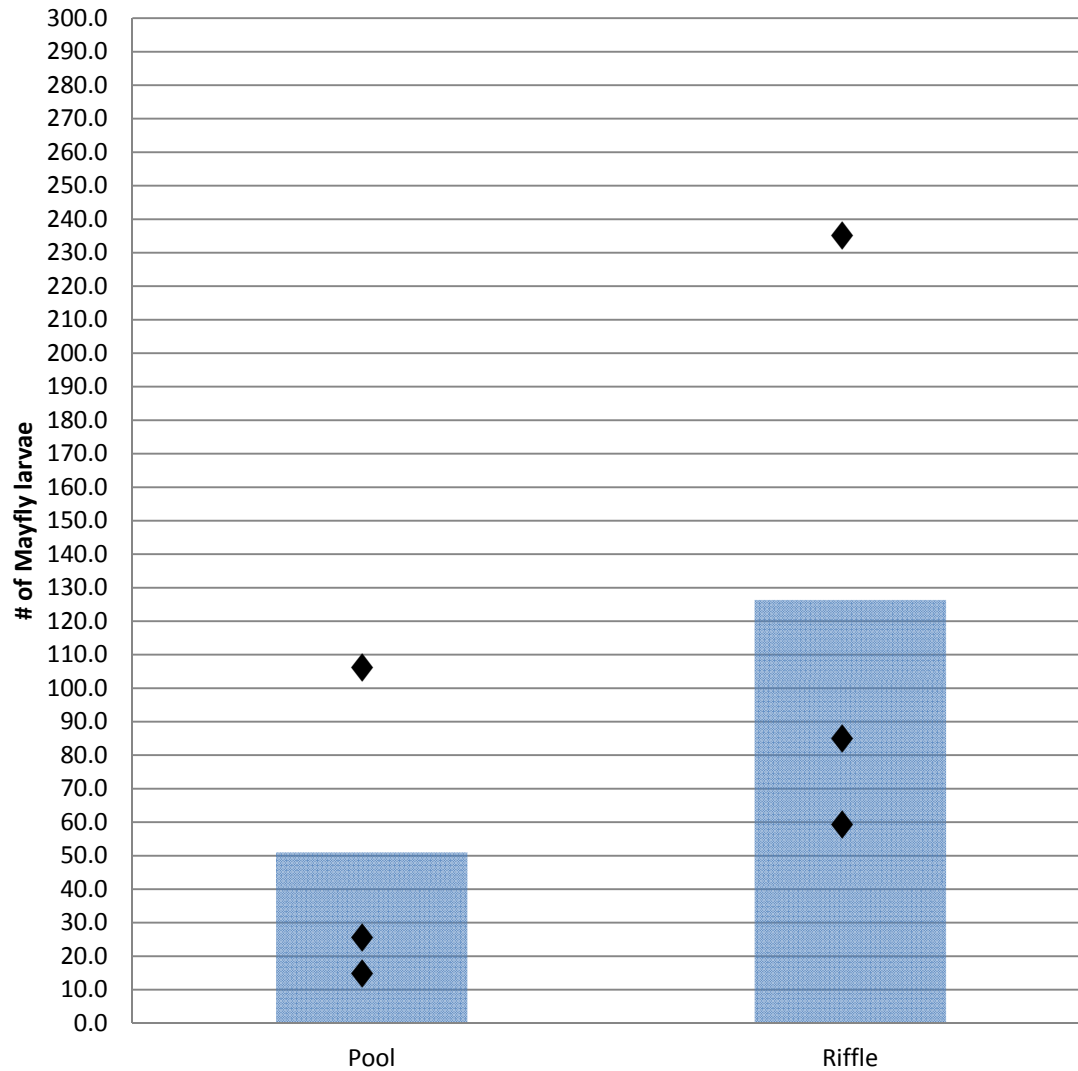


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Example of “hedging” words to use:

Verbs	Adverbs	Adjectives	Nouns	Phrases
seem	often	certain	possibility	It could be the case that
tend	sometimes	clear	assumption	It might suggest that
think	usually	probable	probability	Somewhat of a pattern
believe	probably	possible		Very little difference
suggest	possibly			a bit less
might	perhaps			Appear to be
could				Look like

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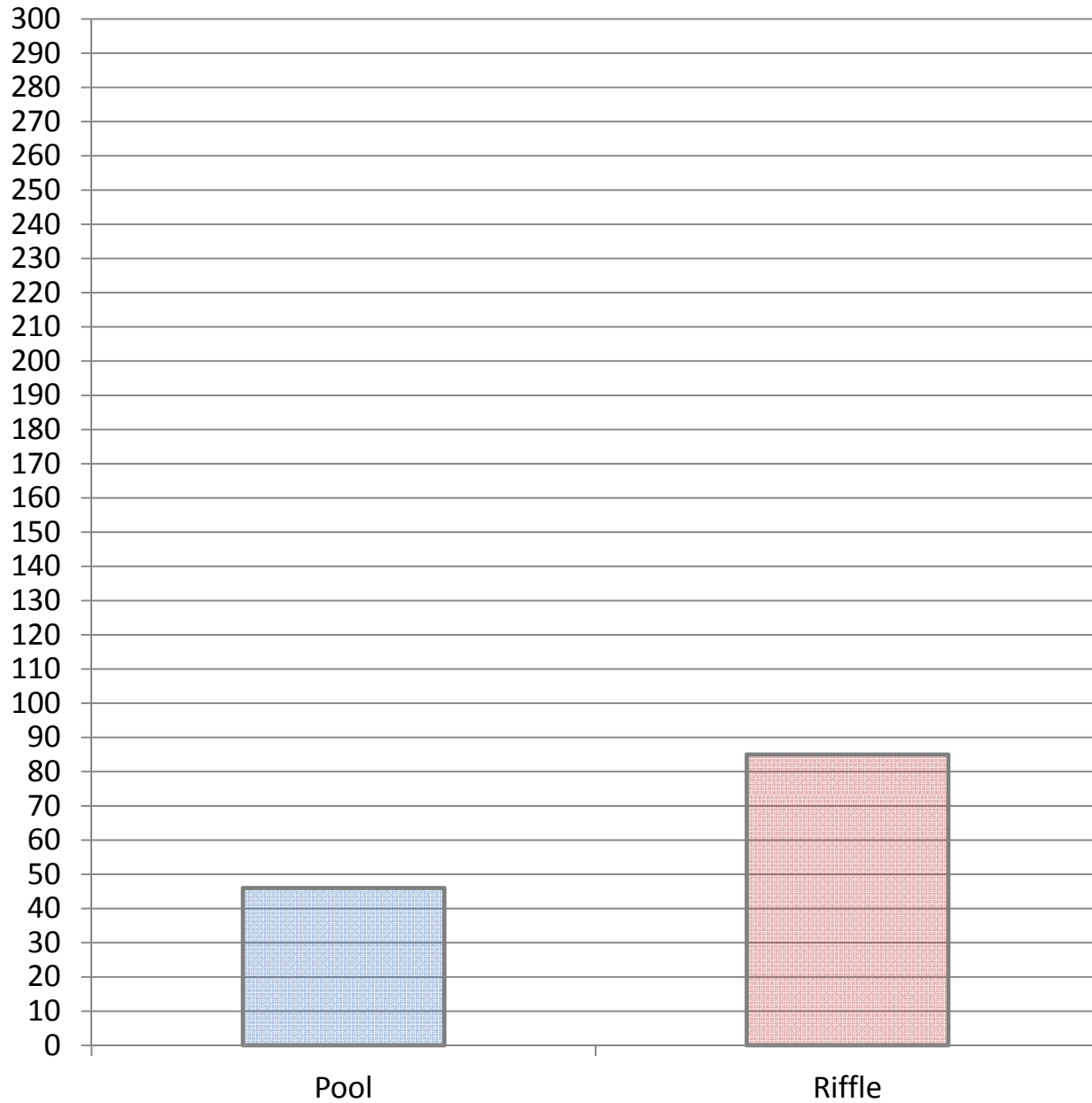


If someone asked where is the best place to find mayflies in the stream, what would you say?
How confident are you in your answer?

Don't forget!

- Scientists never look at averages without also looking at the scatter of data around that average
- The amount of scatter (variability) will affect the confidence with which we can make a claim
- It is easier to predict outcomes when variability is low
- The larger the sample size the better we can see how much variability there is
- Real data is MESSY - or I prefer INTERESTING!

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