# Guided Workshop 2: Confidence Interval Calculator for Small Data Sets

***Instructions:*** Download the file “Guided Workshop 2 – STARTER.xlsx”. I would recommend setting aside about an hour for this activity. When you are ready to start the workshop, open and begin the video “Guided Workshop 2: Confidence Interval Calculator for Small Data Sets”.

The video will have optional in-video questions to help teach you and guide you along. You won’t submit this document, but it will be a good template/guide for the activity.

At the end, after you have completed the Excel file above, you will open the “Guided Workshop 2 Submission” quiz, where you will enter the answers to the questions at the end of this document.

***Background/Objective***

In this workshop, you’ll be creating an Excel workbook that will calculate confidence intervals on the mean and variance for a small set of sample data (variance unknown case). The solution will adapt to any data set up to 40 samples and the user can select the risk level (i.e., 80%, 90%, 95%, 98%, or 99% confidence) for both confidence intervals.

When you are done putting together your Excel file, answer the following questions in the “Guided Workshop 2 Submission Quiz” on Coursera (the text fields below are only for your benefit – you won’t be submitting this document).

1. What is the new sample average for the data when 10 is placed into cell B23? Click here to enter text.
2. What is the lower end of a 95% confidence interval on the mean? Click here to enter text.
3. What is the upper end of the 95% confidence interval on the mean? Click here to enter text.
4. What is the lower end of a 90% confidence interval on the variance? Click here to enter text.
5. What is the upper end of the 90% confidence interval on the variance? Click here to enter text.
6. Copy/paste the second set of data (dry weight of the amphipod *Platorchestia platensis*). from the ‘Data’ tab to the ‘Dashboard’ tab (make sure to copy then right click and Paste Special). What is the upper end of the 95% confidence interval on the mean? Click here to enter text.
7. For the *Platorchestia platensis* data, what is the lower end of the 90% confidence interval on the variance? Click here to enter text.

**That’s all! 😊**