[Dryad | Data -- Survival, gene and metabolite responses of Litoria verreauxii alpina frogs to fungal disease chytridiomycosis](https://datadryad.org/stash/dataset/doi:10.5061/dryad.t1p7c)

[Dryad | Data -- Male reproductive effort might be evolving in the face of devastating disease in a threatened amphibian](https://datadryad.org/stash/dataset/doi:10.5061/dryad.f1vhhmgxf)

**Main question:**

Do certain factors of the frog species *Litoria verreauxii alpina* affect survival rate vulnerability when contracting chytridiomycosis disease from bd fungus, *Batrachochytrium dendrobatidis*? Do factors like size and sex play a part in how long they can live with the disease, or if they can survive at all?

**Specific columns/sheets:**

I am using Dataset 1 from the study “Data from: Survival, gene and metabolite responses of Litoria verreauxii alpina frogs to fungal disease chytridiomycosis” the columns I will be using from this set are “Mass 1”, “Sex”, and “DaysSurv”. For my second dataset I will be using Brannelly\_Data\_Mass from the study “Male reproductive effort might be evolving in the face of devastating disease in a threatened amphibian”. The columns I will be using from thus sheet are “Sex”, “Days\_Survived”, and “Mass\_g”.

**Statistics used:**

I plan to use a t-test in finding the difference between the two groups I am testing together which would be, mass + survival days, and sex + survival days. Through this test I can find the mean days of survival between sex and size. I would also use an ANOVA test to compare all three variables (female, male, and weight).

**Figures Useful:**

The first figure I find useful would be a bar graph, showing how many males and females survived entirely (x-axis – male/female, y-axis – individuals). I would want to use a line graph for my last figure to analyze all variables at once (x-axis – weight, y-axis- days survived, two lines showing male/female).

**Data Processing Methods:**

First, I will read my datasets into excel and inspect them for NAs. If NAs are present, then I will clean out the datasets. I will then rename certain column names like “Mass1” and “Mass\_g” so they are the both similar. After this I will have to subset data so I can get males/females and survive/didn’t together. The data will need to be grouped together correctly by categorical or numeric. I will have to use the aggregate function to calculate a mean if the data is unequal for graphing. Once this is complete, I will have to merge the sets together so I can use them in figures.