Linear Regression Analysis

Field Biology

Data Compilation / Graphing / Analysis:

1. Enter your data into an Excel spreadsheet. Put your gridpoints (or other location identifier) in the left-most column; data fields should run from left to right. Make sure you do NOT include units in your data fields (Excel won't recognize those as numbers). If you've collected data that is not in numeric form, you'll need to create a scale to convert it into numbers. (For example – low, medium, and high could be 1, 2, and 3.)

2. Make an X-Y scatter plot that compares your two pieces of information (from Excel, highlight the cells you want to plot, then choose "Scatter" from the "Insert" menu.)

3. "Clean up" your graph by adding correct titles, headings and legends.

4. Add a trend line to your graph by right-clicking on one of the data points, clicking on the "Add trendline" option, selecting "Display R-squared value on chart", and pressing "OK".

5 What does your graph show? Is there a positive, negative, or no correlation between the two factors you measured? **Type this information** in the area below your graph.

6. If your R-squared value is greater than about 60%, your correlation is reasonably strong. According to the R squared value, is there a relationship between the two factors you measured? If you collected 15 or more data points, it is possible that the correlation you've observed is meaningful. Based on the amount of data you collected, do you think it is a meaningful correlation? **Type this information** in the area below your graph.

When you have completed this assignment, e-mail it as an attachment to dan.bregar@corvallis.k12.or.us with the subject "per *X your name* Noyes Analysis".