



Bioaccumulation of Mercury in Sharks

Part 2 a

Using a subset of data collected on RJD shark research trips, you will analyze the mercury levels found in the Florida Sharks we catch. Based on your analysis, you will be able to conclude which species have the highest levels of mercury contamination, and hypothesize why that might be. You will also be able to determine whether eating shark is a risk to human health.

Instructions

1. Download the Excel file containing the shark mercury data here: <http://rjd.miami.edu/wp-content/uploads/2013/05/Mercury-Data.xlsx>
2. Rename the file "Mercury Activity – [Your Full Name]" and save it in a place you can easily access.
3. Open the Excel file.
4. Copy the data for each species into their respective worksheets (the tabs at the bottom).
5. Identify the minimum and maximum mercury level for each species. Enter your answers into the corresponding green and blue boxes below each group.
6. Identify the minimum and maximum total length for each species. Enter your answers into the corresponding green and blue boxes below each group.
7. Calculate the average (mean) mercury level for each species. Enter your answer into the corresponding orange box below each group.
8. Calculate the average (mean) total length for each species. Enter your answer into the corresponding orange box below each group.
9. Summarize your data analysis in the "Summary" worksheet. Rank the species in ascending order of mercury levels.



Part 2 b

Discussion Questions

1. Which **three species** contained the highest average levels of mercury? Rank in descending order.
2. Which species had the **highest** level of mercury?
3. Which species had the **lowest** level of mercury?
4. Do you notice a correlation between mercury level and total length? If so, why might that be?
5. Are any of the shark species you analyzed safe to eat? Compare your analysis with the EPA Action Level for Mercury Human Consumption.
6. Why else might sharks be a poor choice for human consumption?