

FISH DATA ANALYSIS

Executive Summary Report

Shivani Vellanki

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Introduction:

The data is about 8 different species, that includes their height, width and the scale, where the scale is a Boolean value determining, in case, the fish is weighed or not, and the field tag as given in the dataset, presents the data of the tag numbers of particular fishes.

Net ID:

Net ID describes the unique catch for a particular fish, for example, if the net id is 37, in the 37th catch, according to the data from the dataset, Largemouth Bass, Black Crappie and Bluegill are caught. It is the same, with the other Net ID's.

Probability of catching different fishes:

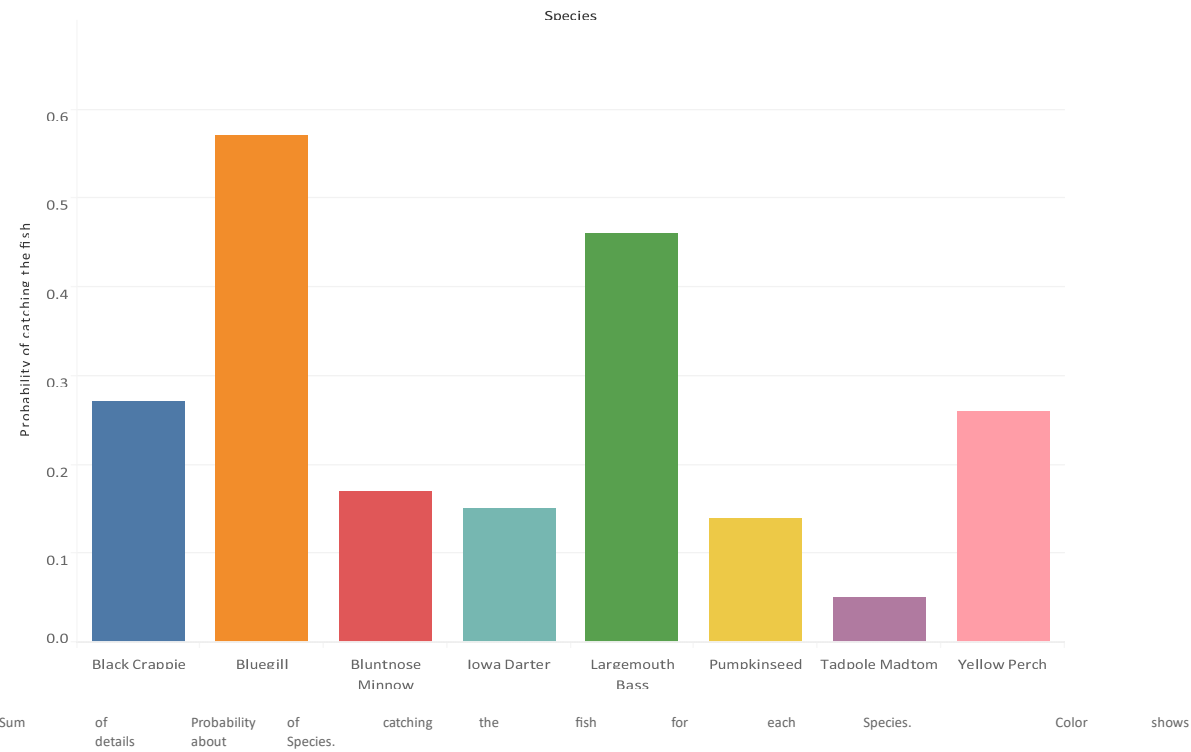
There are 8 different species of fishes, the probability of catching these can be calculated using the net Id of the fishes. There are 58 unique net Id's. The probability of catching a blue gill fish is the highest i.e., 0.57 approximately.

The least probability of catching a Tadpole Madtom fish is 0.05. If we go in the descending order, the first would be the Blue Gill, followed by the Largemouth Bass with the probability of 0.46, then , Black Crappie holding the probability value of 0.275, Yellow Perch, with the value of 0.257, P(Bluntnose Minnow) is 0.17 , followed by Iowa Darter(0.15), with the 7th species Pumpkinseed, and the fish that has the least probability to get caught is. Tadpole Madtom with the value of 0.05.

Probability of a fish being weighed or not?

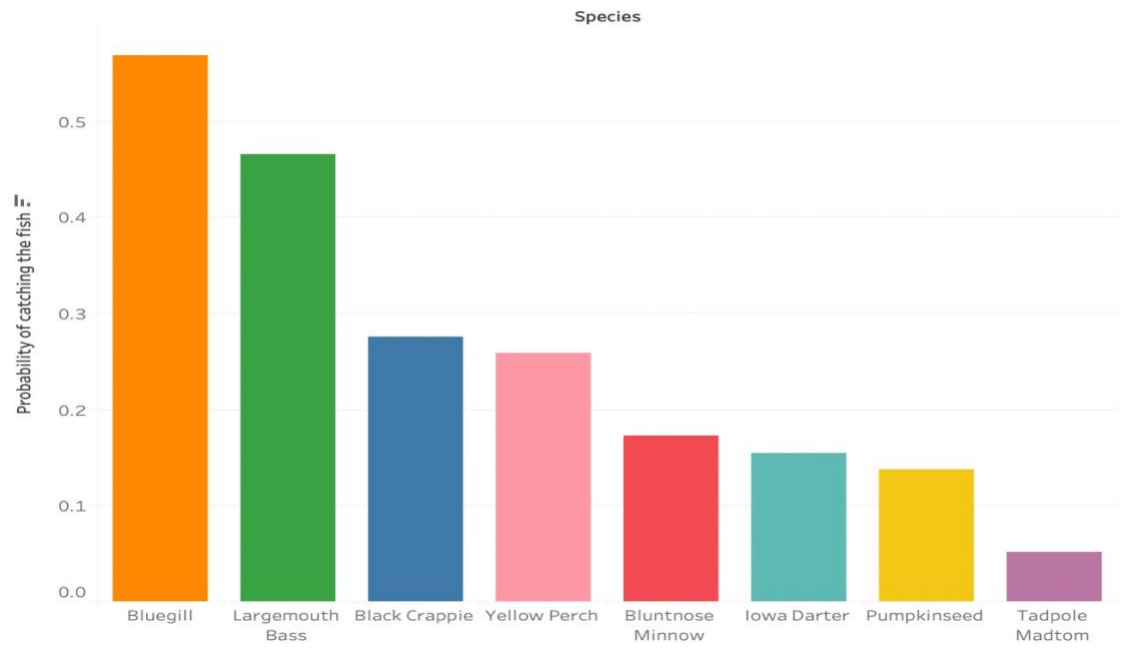
For six species, there is a Boolean value in the data, if the fish is weighed, then it is set to true, if the fish not weighed, then it is set to false. The probability of Bluntnose Minnow, Iowa Darter and Tadpole Madtom fishes not being weighed is 0. The probability of Black Crappie and Largemouth Bass being weighed is the highest i.e., 0.97.

The following graphs represents the probabilities and their descending order i.e., sheet 1 and sheet 2. The graph that represents as sheet 3, gives us an understanding about the weighing condition of different species.

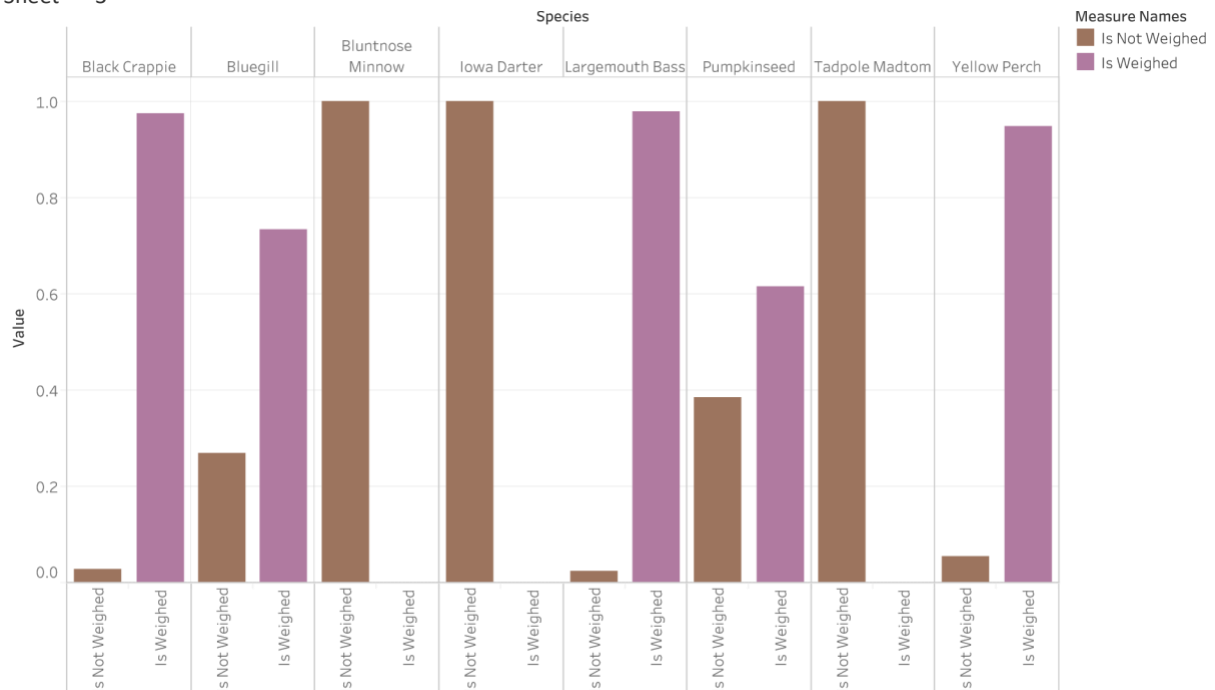


- Species
- Black Crappie
 - Bluegill
 - Bluntnose Minnow
 - Iowa Darter
 - Largemouth Bass
 - Pumpkinseed
 - Tadpole Madtom
 - Yellow Perch

Sheet 2



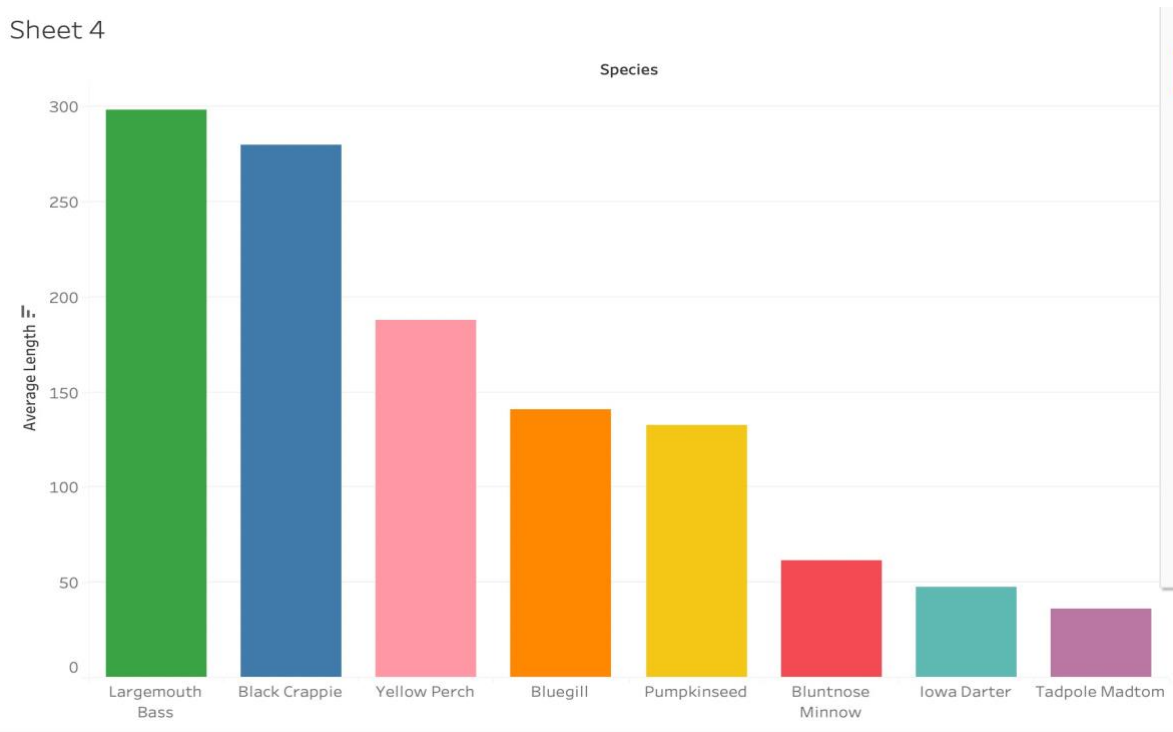
Sheet 3



Is Not Weighed and Is Weighed for each Species. Color shows details about Is Not Weighed and Is Weighed.

Average Length (Inches) Comparison of all 8 Fishes in Descending Order:

Sheet 4

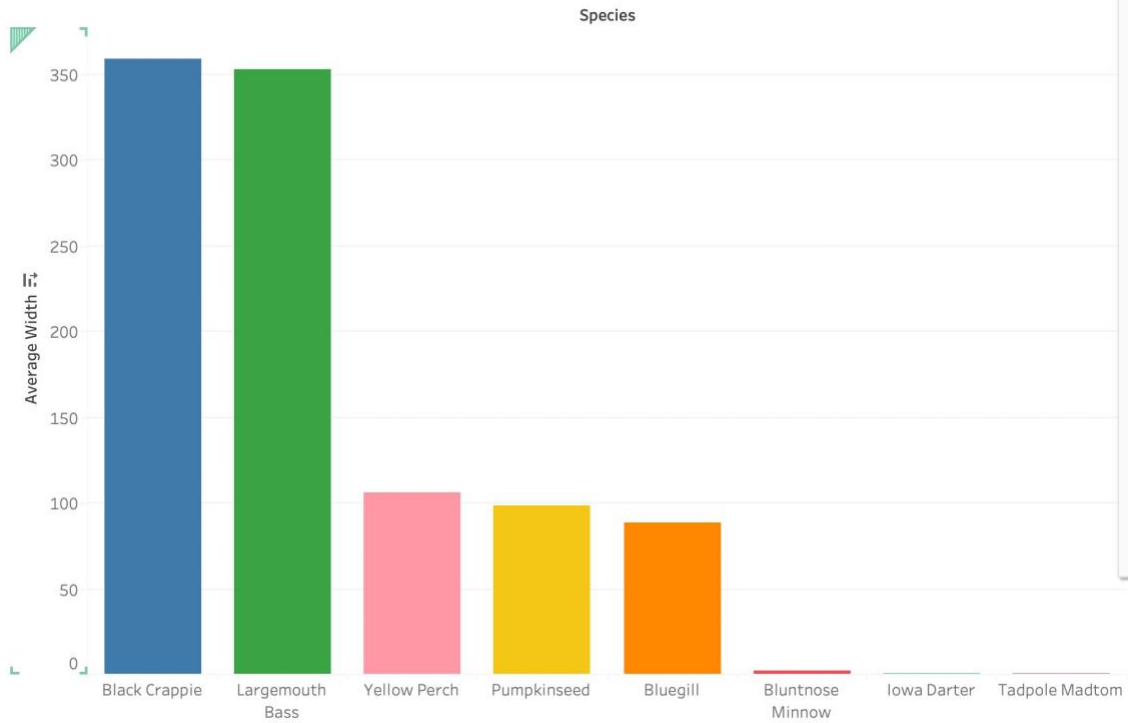


The average length of all the eight fishes is shown as above, and the briefed data as below:

Species	Average Length
Black Crappie	280
Bluegill	140.8318182
Bluntnose Minnow	61.54368932
Iowa Darter	47.65625
Largemouth Bass	298.5657895
Pumpkinseed	132.6923077
Tadpole Madtom	36.333333
Yellow Perch	187.6315789

Average Width:

Sheet 5



The raw data for average width of all the fishes is shown as below.

Species	Average Width
Black Crappie	359.48
Bluegill	88.98846154
Bluntnose Minnow	2.011
Iowa Darter	0.825806452
Largemouth Bass	352.6622222
Pumpkinseed	98.47692308
Tadpole Madtom	0.5833333
Yellow Perch	106.4710526