Name:_____

Dissecting Data:
Graphing Activity

Introduction:
Ms. Bromilow is studying the blue crab, *Callinectes sapidus*, which is an important species in Chesapeake Bay because many people like to eat them. In recent years, the blue crab population has declined and Ms. Bromilow wonders why. She has heard that watermen are finding many juvenile blue crabs in fish stomachs. Ms. Bromilow thinks predators might be eating the young blue crabs, causing the population decline. She decides to collect fishes from seagrass beds to see if they are eating the juvenile crabs that live there, and to determine how important the blue crab might be in their diet.

Instructions:
● Dissect a fish stomach and identify the prey items within using the key below.
● Use a triple beam or digital balance to weigh the entire contents of the stomach - all the food items. Then, sort the items by prey type and determine the mass of each type, e.g. all of the fish pieces, then all of the crab pieces, all of the plankton. Record your data in the table provided.
● Calculate the percentage of total stomach contents represented by each food item; use the formula: Item mass (g) ÷ total contents (g).
● Graph the percent mass of each prey type and answer the questions using the data and your calculations.

Predator Key:
Striped bass = Blue
Red drum = Red
Atlantic croaker = Yellow
Atlantic menhaden = Green

Prey Key:
Fish = Blue beads
Crabs = Red beads
Plankton = Green beads

✱Record your data here. For each food item, calculate its percentage of the total stomach contents:

Predator Species	Fish Mass (g)	Crab Mass (g)	Plankton Mass (g)	Total Contents (g)
% Stomach Contents To calculate: *Item* Mass (g) ÷ Total Contents (g)				

✴Make a bar graph of the Percent Stomach Contents for each prey type found in the stomach of each predator species you samples.

Predator:
Fill in the blank in the title with the predator species name.

Percent of _____ **Stomach Contents by Prey Type**

Percent of Stomach Contents

Fish   Crab   Plankton

Prey Type
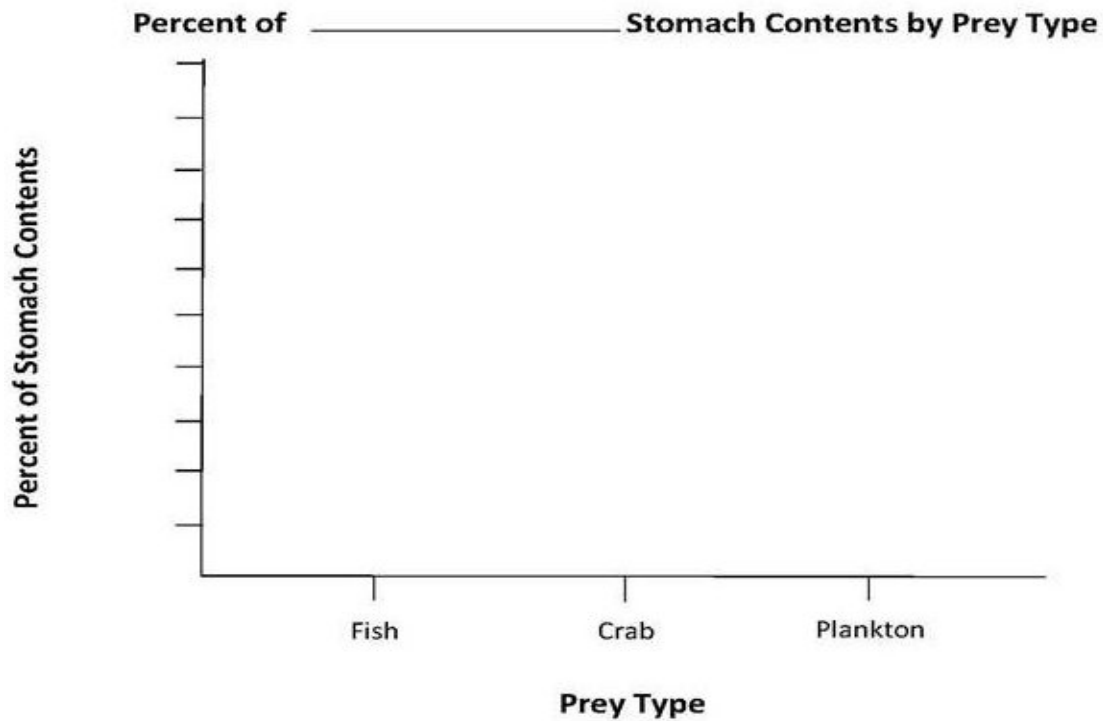
What is the most important prey item for this fish species?

Do you think your fish species could have an important impact on the blue crab population? Why or why not?

Record the stomach content data from the other predator species:

Predator Species	% Fish	% Crab	% Plankton