Digesting Data

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. There are 4 possible fish species to dissect: striped bass, red drum, Atlantic croaker, and Atlantic menhaden. Use a triple beam balance to determine the mass of each prey type, e.g. all of the fish pieces. Record your data. Graph the mass of each prey type and answer the questions using the data that you collected.

Predator Key:

Striped bass = Blue

Red drum = Red

Atlantic croaker = Yellow

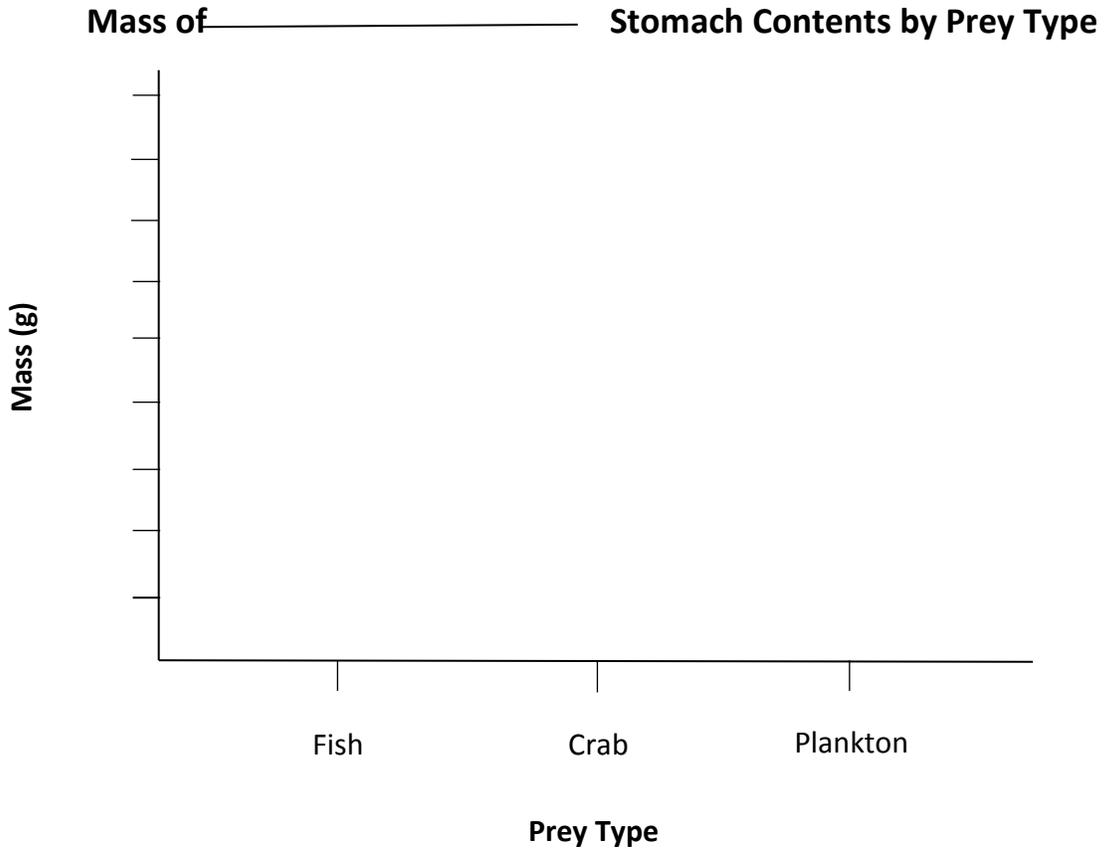Atlantic menhaden = Green

Prey Key:

Fish = Blue beads

Crabs = Red beads

Plankton = Green beads

Record your data:

Species	Fish Mass (g)	Crab Mass (g)	Plankton Mass (g)

Make a bar graph of the mass of each prey type found in your fish's stomach.

Fill in the blank in the title with your species' name.

Mass of—————————— Stomach Contents by Prey Type

Mass (g)

Fish   Crab   Plankton

Prey Type

What is the most important prey item for your fish?

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