NAME: _____ **DATE:** _____

STUDENT #: _____ **TEACHER:** _____

Mating and Predator Investigation Sheet for Data Trial 1

Write the name of the person in your group who will be counting and recording each predator below.

- Croaker Predator Group Member Name _____
- Red Drum Predator Group Member Name _____
- Sea Turtle Predator Group Member Name _____

Record your data in the boxes below and calculate the data differences for each variable.

Crab Mating Event Data

Crab Pheromone Concentration (%)	20	30	40	50	60	70	80	90	100
Number of Crab Mating Events									

Predator Event Data

Circle the name of your predator: **Croaker** **Red Drum** **Sea Turtle**

Crab Pheromone Concentration (%)	20	30	40	50	60	70	80	90	100
Number of Predator Events									

When your group members share their predators, write the data difference analysis for each predator.

- Croaker Predator: _____
- Red Drum Predator: _____
- Sea Turtle Predator: _____

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NAME: _____ **DATE:** _____

STUDENT #: _____ **TEACHER:** _____

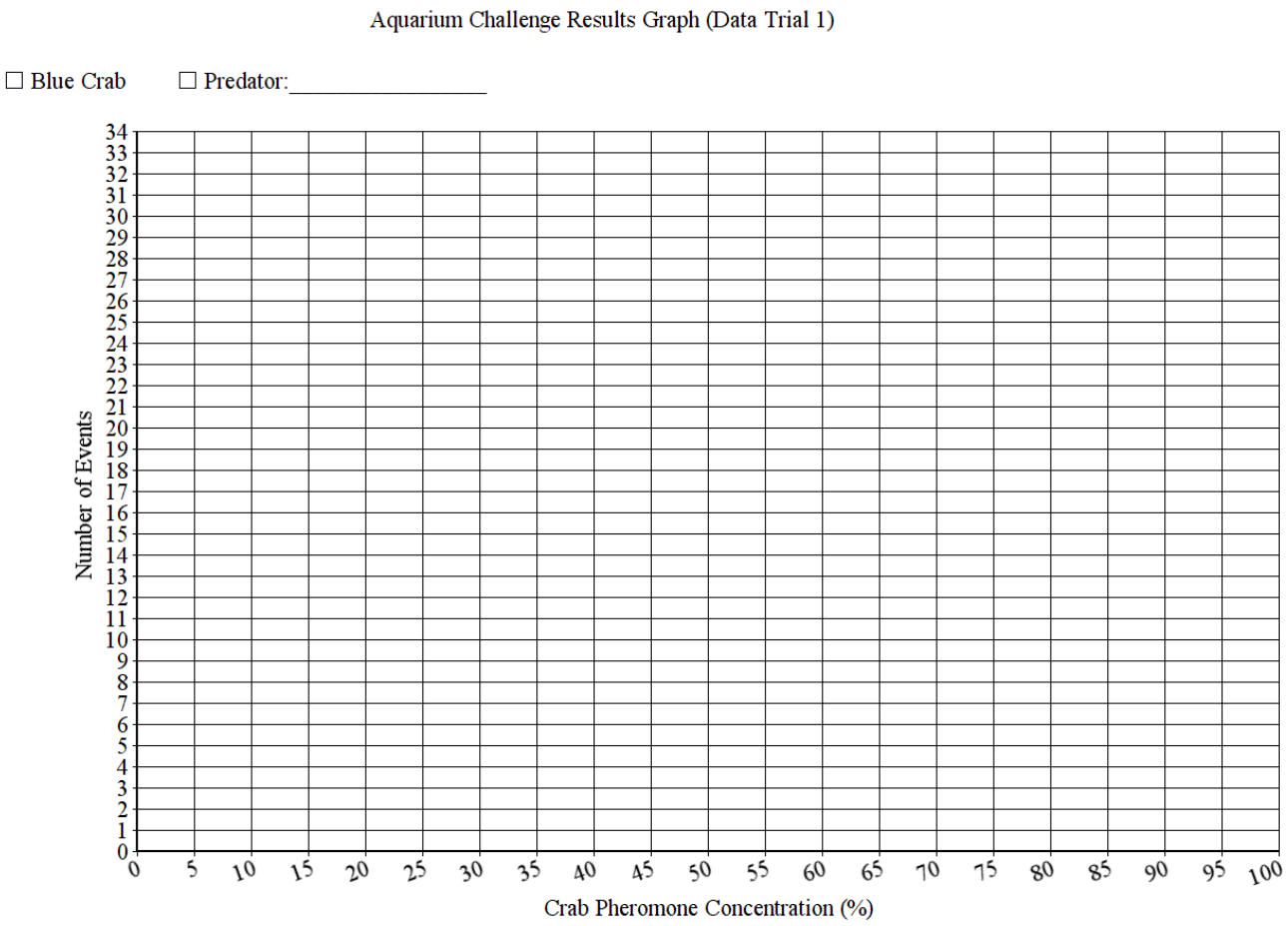
Results Graph for Data Trial 1

Look at your *Mating and Predator Investigation Sheet for Data Trial 1* and transfer your data from the table into coordinate pairs for the crab and your predator.

Crab: (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (___, __)

Predator: (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (___, __)

Place a dot on the coordinate pair values for the Crab Mating Event and the Predator Event that you selected. Make sure to write the name of the predator on the blank line in the legend box below.



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NAME: _____ **DATE:** _____

STUDENT #: _____ **TEACHER:** _____

Mating and Predator Investigation Sheet for Data Trial 2

Write the name of the person in your group who will be counting and recording each predator below.

- Croaker Predator Group Member Name _____
- Red Drum Predator Group Member Name _____
- Sea Turtle Predator Group Member Name _____

Record your data in the boxes below and calculate the data differences for each variable.

Crab Mating Event Data

Crab Pheromone Concentration (%)	20	30	40	50	60	70	80	90	100
Number of Crab Mating Events									

Predator Event Data

Circle the name of your Predator: **Croaker** **Red Drum** **Sea Turtle**

Crab Pheromone Concentration (%)	20	30	40	50	60	70	80	90	100
Number of Predator Events									

When your group members share their predators, write the rate of change for each predator below.

- Croaker Predator: _____
- Red Drum Predator: _____
- Sea Turtle Predator: _____

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Results Graph for Data Trial 2

Look at Data Trial 2 and transfer the data from the table into coordinate pairs for the crab and your predator.

Crab: (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (___, __)

Croaker: (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (___, __)

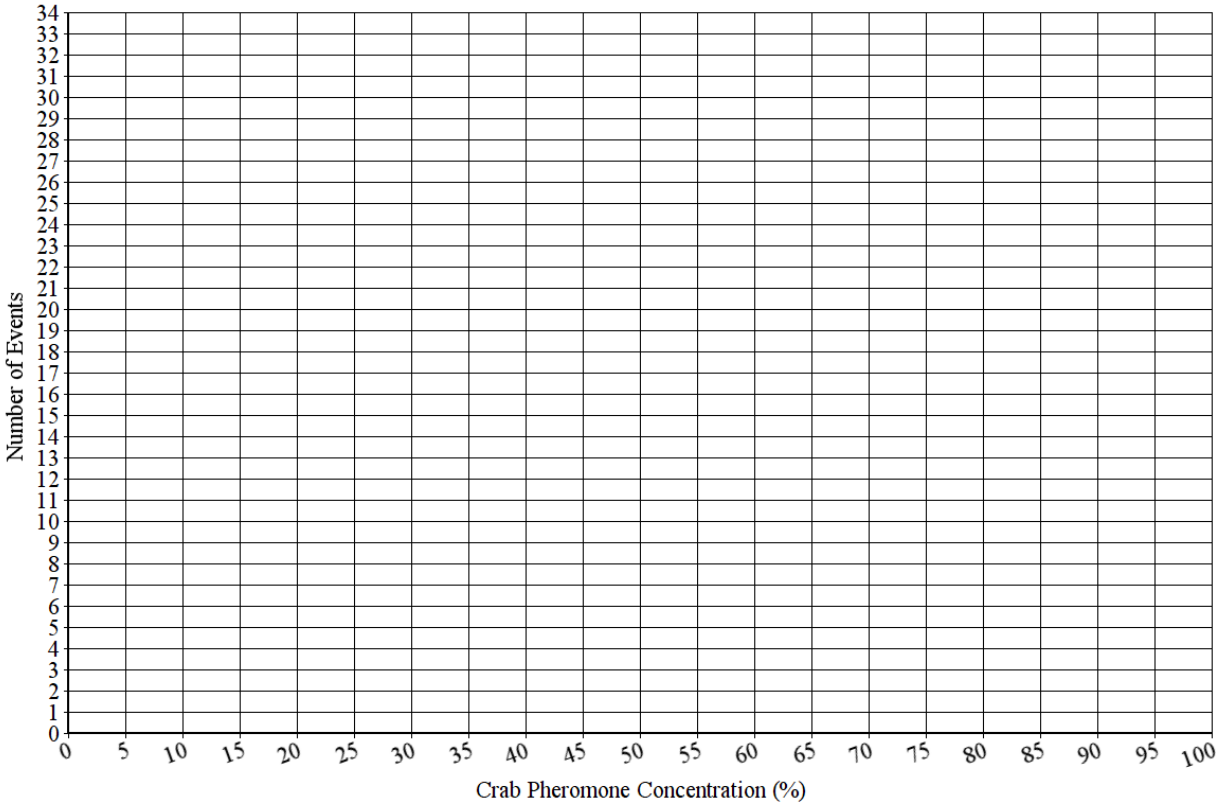
Red Drum: (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (___, __)

Sea Turtle: (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (__, __) (___, __)

Place a dot on the coordinate pair values for the Crab Mating Event and the Predator Event. Be sure to color code your legend.

Aquarium Challenge Results Graph (Data Trial 2)

☐ Blue Crab ☐ Croaker ☐ Red Drum ☐ Sea Turtle



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Recommendation Letter

Write a letter to the aquarium staff at the Georgia Aquarium explaining your decision about the animals that you want to put in the crab tank at the new exhibit. As you know, putting in the wrong combination would be costly to the aquarium and would be unethical to the animals. Please add in sufficient evidence from the challenge to support your decisions.

Dear Aquarium Staff,

I am writing you today to share some recommendations for the new blue crab exhibit. We recognize that you want to create a balanced ecosystem within the tank, therefore I recommend that you put the following

predator(s) into the tank with the blue crab: _____

_____.

If you look at the graphed data you can see a _____ relationship between the

_____ this means _____

_____

_____.

This is different from the _____, which have a

_____ relationship meaning _____

_____

_____.

You can also look at the data tables that show a _____ rate of change between our

recommended tank dwellers. In fact, the rate of change we calculated was _____.

This means _____

_____. Do not hesitate to contact me if you have any further questions.

Sincerely,

_____

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