**Unit 6.6 Lesson 07: Invasive Species and Ecosystem Change**

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| **Instructions:** Please read and highlight the paragraph below and examine the data in the graph. Then, complete the tasks below related to the claim that invasive snarks may impact native species populations. |

In this activity, you will consider the impact of snarks, an invasive species from Fairyland. Beginning in the late 2000s, they invaded many parts of the lakes of Glopville County. At that time, many scientists predicted that snarks would harm many of the native species populations, because both the snarks and the native species use many of the same resources. To test this claim, scientists investigated parts of Gage Lake and counted both the TOTAL number of different native species and the number of individual snarks in different parts of the lake, they learned:

* that snarks were the ONLY invasive species in the lake AND
* these native species’ food is the ONLY food that snarks eat.

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| Number of Invasive Snarks in an Area | Number of Different Native Species in an Area |
| 0 | 26 |
| 0 | 24 |
| 1 | 18 |
| 1 | 14 |
| 3 | 6 |
| 4 | 6 |
| 5 | 4 |
| 6 | 4 |
| 7 | 2 |
| 9 | 4 |
| 10 | 3 |

To the left is a graph that shows the data scientists collected in 2016. Make a scatter plot graph (like we did in class for the Purple Loosestrife data.)

Include in your graph:

* axis labels:
  + the x-axis will show the number of invasive snark INDIVIDUALS in each area of the lake, and
  + the y-axis will show the number of different native SPECIES in the same area of the lake.
* Title
* Trend line

Insert your graph here:

1. Use the patterns you observe in the graph to describe the relationship between the number of native species and the number of invasive snarks. *Remember that each data point is a location or area in the lake. At each area, both invasive snarks and different native species were counted.*

* Claim Statement:

2. Use specific data from the graph to provide evidence to support OR refute the scientist’s claim that snarks have harmed the populations of native species.

* Evidence/data to support the claim.

3. Based on the graph above, *describe the small change to the ecosystem that caused a large impact on the ecosystem. ( where in the data is this idea suggested…identify and explain.)*

4. What would likely happen *if the invasive snarks were introduced to a new lake* in Glopville County? Use patterns you found in the graph to make a *prediction about the number of native species that would be found in the new lake where there is now a large population of invasive snarks.*

5. Think back on what you have learned about *potential causes to changes in ecosystem populations*. (abiotic/biotic) Describe one reason why you think the population of native species could have changed in response to the introduction of snarks. (needed resources…cause and effect)