Design the Ultimate Invader!

Name _____ Date _____

HOW BAD IS YOUR INVADER?

Instructions: Use your knowledge of biology, ecology, and evolution to answer the following questions about your ultimate invader. You may use your textbook as a reference.

1 If an invader is not outwardly aggressive, what novel characteristics allow it to outcompete other species? For example, some "novel weapons" might include allelopathy, multiple hosts/vectors, size (small has advantages), adaptations for multiple modes of transport, attractive attributes, etc.

2 What biotic or abiotic factors may limit the growth of your population of invaders?

3 What might happen when two different invasive species hybridize? What might happen when an invasive species and a noninvasive species hybridize?

4 What role does your invader play in the food web?

How Fast Will It Spread?

5 Is your invader autotroph or heterotroph? Explain.

6 Some invaders could be too successful for their own good. The invader may reproduce at such a rapid rate that it eats itself out of house and home. Is this characteristic a good one for the ultimate invader?

7 Why is eradication of a species almost impossible with biological control?

8 Other species your invader interacts with may have to adapt to the presence of your invader to survive. Choose a characteristic of your invasive species that will affect native species, and describe a realistic process by which a native species could evolve to live with your invader.

9 Pretend a subset of your invader evolves into a new species that is even more invasive than before. Describe the process by which this evolution occurs. What characteristic evolved with the new species? (Invent the characteristic!)