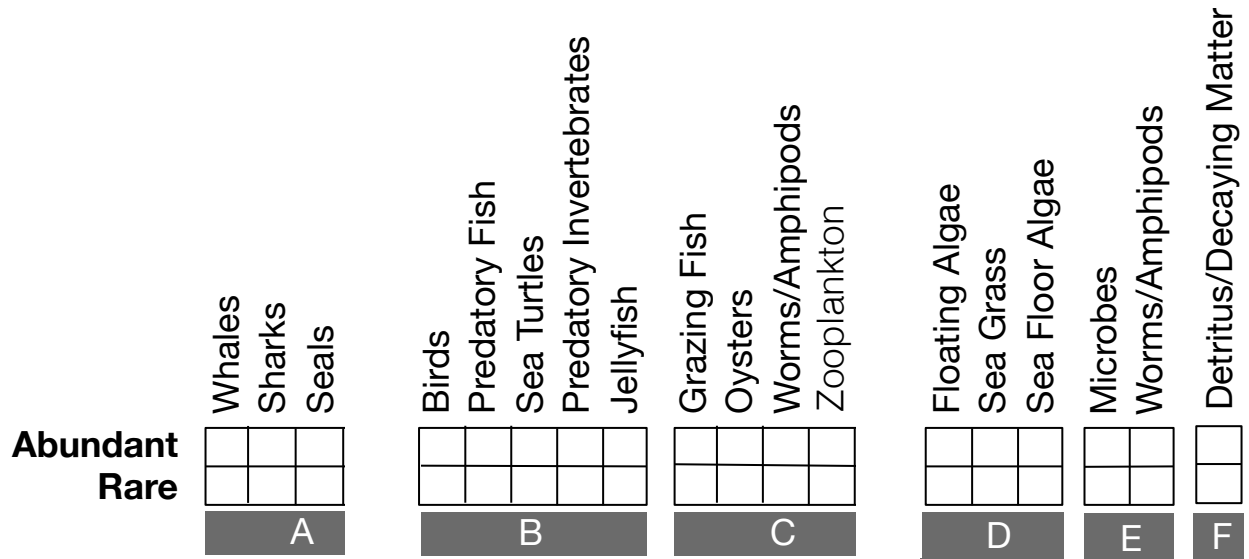


Name _____ Class: _____ Date: _____

Worksheet 1: Questions for Chesapeake Bay Food Web Before Large-scale Fishing

1. Examine the food web before humans lived in the Chesapeake. Notice which species groups are abundant (dark circles) and which species groups are rare (light circles). Color or check the squares on the chart below to indicate which species groups were rare or abundant.



2. Are most species abundant or rare? Which species groups are rare?

3. The species groups in the chart above are organized by trophic level. Write the name of the trophic group for groups A, B, C, D, and E. The trophic groups found in this ecosystem are decomposers, producers, consumers, secondary consumers, and top predators. Include a brief explanation of how each group interacts with other trophic levels.

A. _____

B. _____

C. _____

D. _____



E. _____

4A. How is it possible that the worms/amphipods are considered part of two groups?

4B. In which group are they more appropriately placed? Hint: Worms and amphipods cause rot on the plants that they eat.

5. What is group F? What is the role of detritus in the food web?

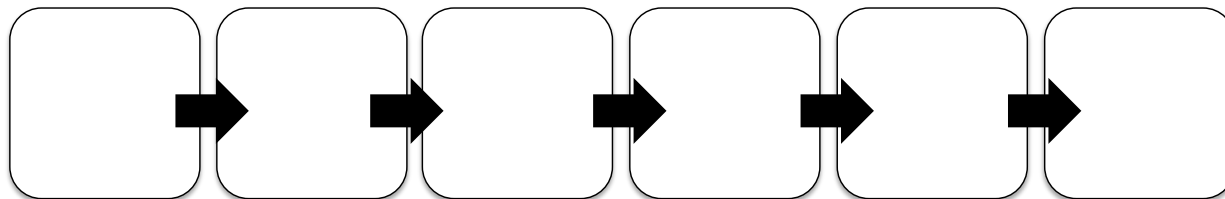
6. List the number of strong and weak interactions for each of the species groups listed at the top of this chart. Count the number of strong and weak connections (arrows going to or from a species group) to complete the chart below:

Connection	Sea Floor Plants	Predatory Fish	Grazing Fish	Floating Algae
Strong: 	Strong:	Strong:	Strong:	Strong:
Weak: 	Weak:	Weak:	Weak:	Weak:
Total:	Total:	Total:	Total:	Total:

7. The producers can be organized based on where they are found in the water. Some float and some grow from the seabed. Which producers float and which producers grow from the sea bottom?

8. In this ecosystem, which type of producers are more abundant, the producers that float or the producers that grow from the sea bottom?

9. Find and write out a six -step food chain:



10. Compare this food chain to a food chain that you find on land. How do they compare in length? Why do estuary food chains appear to be a different length than food chains on land?

11. What do the microbes eat? Are they producers, consumers or decomposers?

12. If whales and turtles become rare in this ecosystem what would you expect to happen to the number of jellyfish?

13. If whales, sharks, and seals were removed from the ecosystem what would you expect to happen to the numbers of predatory fish?

14. If the oyster population was reduced what would you expect to happen to the quantity of microbes, floating algae and detritus?
