

Blue Crabs in the Chesapeake

Prelab Questions

1. Why are blue crabs important? (pg1)
2. List the taxonomic classification of the blue crab (phylum, class, order, family, genus, and species). (pg1-2)
3. What is the translation of the blue crab's scientific name? (pg2)
4. When was the Chesapeake Bay formed? (pg2)
5. How can you easily identify male vs. female blue crabs? (pg2)
6. What is a sponge mass? What is the difference between an orange mass and a black mass? (pg3)
7. What is the native range of the blue crab? (pg5)
8. Where are blue crabs found during the winter? (pg5)
9. Where are blue crabs found spring and summer? (pg5)
10. Where do female blue crabs migrate after mating? (pg5)

Activity

Using the data tables on pages 7-18 and the map on page 23, analyze the movement of blue crabs throughout their lifecycle, fill out the following chart (list the appropriate station numbers in each column) and answering the questions.

Page #	Crab Life Stage	Dec-Mar	Apr-May	Jun-Aug	Sep-Nov
7-9	zoea 0-5				
7-9	zoea 6-500				
7-9	zoea >500				
7-9	megalops 0-10				
7-9	megalops 11-350				
7-9	megalops >350				
10-12	juveniles 0-10				
10-12	juveniles 11-20				
10-12	juveniles >20				
13-15	juveniles & adults 0-10				
13-15	juveniles & adults 11-20				
13-15	juveniles & adults >20				
16-18	adult females 0-10				
16-18	adult females 11-20				
16-18	adult females >20				

Remember for your analysis: The lower station numbers are towards the bottom of the estuary (closer to the ocean) and the higher station numbers are towards the top of the estuary (closer to, or in, the rivers).

Lab Questions

11. What information from the data charts might help account for the differences in the abundance of zoea among the stations you listed above?
12. What other data from the charts might help you account for the differences in the location of megalopae?
13. What is notable about the data on zoea from stages 3-7?
14. The data shows that stage 1-2 zoea are present, as well as the more mature young crabs, the megalopae. What explanations might there be for the absence of later stage zoea in the Chesapeake Bay?
15. What information from the data charts might help account for the differences in the abundance of juveniles among the stations you listed above?
16. What information from the data charts might help account for the differences in the numbers of the different types of crabs found at the stations you listed above?
17. What information from the data charts might help account for the differences in the abundance of mature females among the stations you listed above?
18. What data from the charts might help you account for the differences in the location of female crabs in various stages of egg development?

Postlab Questions

19. Explain the blue crab life cycle.
20. Relate the blue crab life cycle to the varying conditions found throughout the Chesapeake.
21. Why would this information be important to humans?