

Species-Specific: Horseshoe Crabs Assignment

Instructions: Horseshoe crabs are unique organisms with many highly individual traits and ecological relationships, yet they are also representative of the complex relationships that many organisms have with other members of their species (intraspecifically) and with members of other species (interspecifically).

Answer these questions about horseshoe crabs.

1. Is there more competition for egg-laying positions higher or lower on the shore? Why?
2. Readings: Ecology: PD Haemig's "Ecosystem Engineers" and University of Washington's "Keystone Species Hypothesis"

Link: Ecology: PD Haemig's "[Ecosystem Engineers](#)" and University of Washington's "[Keystone Species Hypothesis](#)"

Instructions: Read each of these webpages in their entirety, and then answer the follow questions.

- A. Are horseshoe crabs ecosystem engineers? Why, or why not?
- B. Are horseshoe crabs keystone species? Why, or why not?
- C. If you consider horseshoe crabs in relation to non-human animals vs. humans, does your answer to either of the above questions change?

Terms of Use: Please respect the copyright and terms of use on the webpages displayed above.

3. Imagine there is a large increase in the demand for horseshoe crab blood for medical research. What other species will be affected by this increase in demand, and in what ways will they be affected?



4. Researchers discover that a small population of horseshoe crabs is developing much faster than others, reaching sexual maturity in 4-5 years instead of 9-11 years. Will you expect to see an increase in this population? What will be the effect of this population on other species that interact with horseshoe crabs?
5. A hurricane destroys a series of tidal flats in the Delaware Bay. How will this affect horseshoe crabs?

