

Week 3 Yellowdig Discussion Questions

Our Yellowdig community can be accessed through our Brightspace course page under 'Content and Activities', then 'Yellowdig'. Online discussion periods run from Monday morning to midnight on the following Sunday. The point earning rules can be found here:

[Point earning rules for Yellowdig.](#)

Do not use AI to write posts. [Here is my policy for the use of AI in this class.](#)

The discussion questions below are intended to start conversations. You are encouraged to discuss any aspect of the readings or assigned material. You do not have to answer all of the questions below, but rather use these questions as prompts to contribute to the online discussion portion of the class.

All posts must use a 'Topic' from the pulldown list in yellowdig, e.g., **Week 3 Discussion** or **Get Help**.

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Chapter 7 – Core Responses: Adapt

1. How does the concept of adaptive capacity help us understand which species are more likely to survive under global change pressures?
2. Compare the roles of phenotypic plasticity and genetic adaptation in species' responses to environmental change. Why is it important to distinguish between these mechanisms?
3. What are some examples of rapid evolutionary change in response to human-driven environmental pressures? Discuss the implications for biodiversity conservation.
4. How might the adapt response be limited by the pace and scale of global change? In what situations might adaptation fail to keep up with environmental change?

Chapter 8 – Core Responses: Die

1. Explain the concept of the extinction vortex. How do genetic, demographic, and environmental factors interact to increase extinction risk?

2. Why are small and isolated populations more vulnerable to extinction? Discuss with reference to genetic drift, inbreeding, and stochastic events.
3. What is extinction debt, and how does it help us understand the long-term consequences of habitat destruction and other global change stressors?
4. Discuss the sixth mass extinction. What evidence supports the idea that we are currently experiencing a mass extinction event, and what are the major drivers?

Chapter 9 – Community-Level Responses

1. How can the loss or addition of a single species disrupt entire ecological networks? Use the Patagonia mutualism collapse or the kelp forest case as an example.
2. What are cascading effects, and how do they arise from disrupted biotic interactions? Provide a specific case study from the chapter.
3. Why are invasive species so often associated with the breakdown of native species interactions and mutualisms? Can invasions ever have positive ecological effects?
4. How might phenological mismatches disrupt species interactions within a community, and what are potential long-term consequences for ecosystem stability?

Documentary – Seaspiracy

1. What was the most surprising or important thing that you learned from these chapters or from 'Seaspiracy'? Has your view on sustainability changed at all after viewing this documentary? If so, how and why?