

RW question 11

Text 1

What factors influence the abundance of species in a given ecological community? Some theorists have argued that historical diversity is a major driver of how diverse an ecological community eventually becomes: differences in community diversity across otherwise similar habitats, in this view, are strongly affected by the number of species living in those habitats at earlier times.

Text 2

In 2010, a group of researchers including biologist Carla Cáceres created artificial pools in a New York forest. They stocked some pools with a diverse mix of zooplankton species and others with a single zooplankton species and allowed the pool communities to develop naturally thereafter. Over the course of four years, Cáceres and colleagues periodically measured the species diversity of the pools, finding—contrary to their

expectations—that by the end of the study there was little to no difference in the pools' species diversity.

Based on the texts, how would Cáceres and colleagues (Text 2) most likely describe the view of the theorists presented in Text 1?

- A) It is largely correct, but it requires a minor refinement in light of the research team's results.
- B) It is not compelling as a theory regardless of any experimental data collected by the research team.
- C) It may seem plausible, but it is not supported by the research team's findings.
- D) It probably holds true only in conditions like those in the research team's study.

Key	C
Domain	Craft and Structure
Skill	Cross-Text Connections

Key Explanation: **Choice C** is the best answer. Text 2 indicates that Cáceres and colleagues expected to find at the end of their study that the pools they stocked with multiple zooplankton species would have greater diversity than the pools they stocked with a single zooplankton species but that this was not, in fact, the case.

Distractor Explanations: **Choice A** is incorrect because the findings obtained by Cáceres and colleagues fundamentally challenge the hypothesis in Text 1 rather than largely support it. **Choice B** is incorrect because “contrary to their expectations” (Text 2) indicates that Cáceres and colleagues had assumed the hypothesis in Text 1 was correct prior to conducting their own study. **Choice D** is incorrect because the findings obtained by Cáceres and colleagues undermine, rather than support, the hypothesis in Text 1.