

A CURE for the Biodiversity Crisis: Integrating Biodiversity Research with Education to Increase Diversity, Equity, and Inclusion in Ecology and Evolutionary Biology

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Summary: Undergraduate participation in research leads to higher retention rates, shorter graduation times, and a higher likelihood of employment in STEM fields after graduation. However, there is a need for more opportunities for undergraduates to participate in authentic, credit-based research experiences. The Freshman Research Initiative (FRI), founded at UT, is a nationally recognized model for STEM education that was developed to ensure that research experiences occur early enough in an undergraduate's career to forge a strong link between research and education. Using an expanded apprenticeship model, the FRI program places freshmen into one of ~30 faculty-led course-based research experiences ("streams") in a variety of STEM fields as an alternative to entry-level lab courses. In this presentation, I provide an overview of the FRI program at UT, illustrate how the expanded apprenticeship model enhances student success, and discuss how FRI provides an opportunity to enhance diversity, equity, and inclusion among underrepresented minorities in the biological sciences. Using examples from my own research stream ("Biodiversity Discovery"), I highlight how engaging students in authentic research can be transformative for students. Finally, I end with some recommendations for faculty that may be considering designing and implementing a CURE at their university.