

QUANTITATIVE AND SYSTEMS BIOLOGY COLLOQUIUM: Diversification and Conservation of Neotropical Amphibians

Kelly Zamudio University of Texas at Austin



<u>Date:</u> 5/3/2024

<u>Time:</u> 12:30- 1:45 PM

Location: GRAN 135



About The Speaker:

Kelly Zamudio was born in California and early on her family immigrated to Peru and then Brazil, where she was raised. Kelly received her B.A. from UC. Berkeley (1991), her Ph.D. from University of Washington (1996), and was a post-doctoral fellow at UC Berkeley (1997-1999). She began her tenure-track job at Cornell in 2000, where she mentored and advised many undergraduates, for which she received the Robert and Donna Paul Advising Award in 2009, the College Graduate Advising Award in 2014, and the Stephen H. Weiss Presidential Fellowship in 2018. In 2021 Kelly joined the Department of Integrative Biology at UT Austin, where she is actively involved in mentorship and campus-wide efforts to improve the climate for diverse students in science. Kelly's research focuses on the evolutionary processes leading to the origin of biodiversity in the highly biodiverse tropics.

Abstract:

Frogs in the Neotropics have developed a broad array of reproductive modes which have important consequences for individual fitness. Using a combination of comparative methods, and field-based analyses of paternity and reproductive outcome, our lab explores how sexual selection and natural selection have shaped the diversity of frogs in this biodiversity hotspot. Neotropical frogs are also under severe threat from an emerging infectious disease caused by a pathogenic fungus. Using genomic techniques, we determine the mechanisms this parasite uses to exploit it's hosts, measure the consequences of infection, and determine possible paths for amphibian conservation in the Neotropics.