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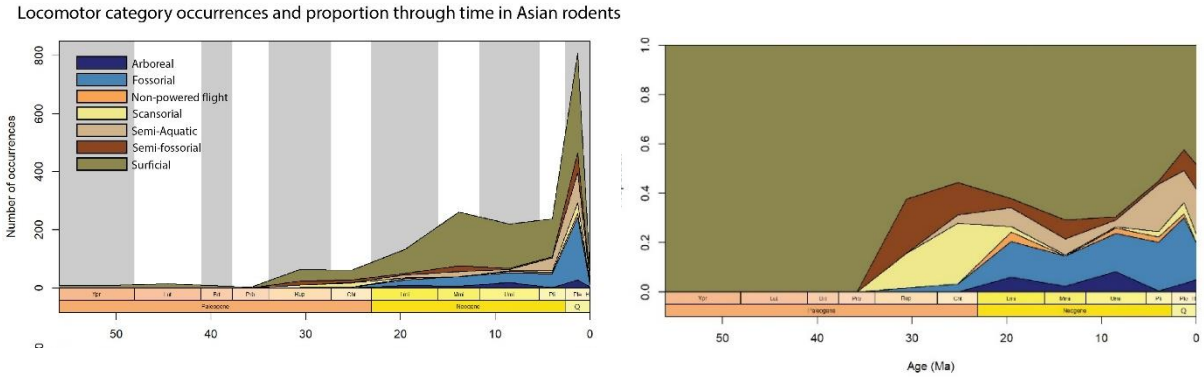
DIPARTIMENTO DI GEOSCIENZE

Seminario

Using small mammals as a tool for understanding the effects of climate and environmental change on biodiversity

Tuesday, 26 May 2026 – 16:30, Aula Arduino

Relatrice:
Prof. Amanda Peng -
Department of Geosciences and
Sternberg Museum of Natural History, Fort Hays State University



An understanding of biological diversity and its change through time has been a topic of study for nearly two centuries. Past biological diversity, frequently measured by species richness, is of particular interest to paleontologists who seek to understand past biodiversity and inform current diversity. However, many dimensions of biological diversity cannot be captured by species richness alone, and for that reason, I examine functional richness change in the fossil record, including both morphological and ecological diversity change through time and in response to external processes. In my research, I examine changes to biological diversity in response to abiotic factors like climate and landscape change. I primarily utilize rodents for this purpose, as this small-bodied group responds quickly and closely to external abiotic drivers. I use both the North American and Asian rodent records, and I investigate how rodents respond morphologically and ecologically to climatic events like the Middle Miocene Climatic Optimum, and tectonic events like the uplift of the Tibetan plateau and the aridification of central Asia. My work seeks to discover the role that functional diversity plays in the evolution of diversity and disparity in biotic organisms, and how this diversity evolves in response to abiotic drivers, like tectonism, environmental shifts, and climatic change.

Proponente: Elena Ghezzo