South-Central Section - 59th Annual Meeting - 2025

Paper No. 3-4
Presentation Time: 1:30 PM-5:00 PM

UPPERMOST PENNSYLVANIAN-LOWERMOST PERMIAN CONODONT BIOSTRATIGRAPHY OF THE MIDCONTINENT SEA (KANSAS, NEBRASKA)

MARTINEZ, Jennifer[1], GUERRERO, Josiah[1] and MCADAMS, Neo[2], (1)Department of Geosciences, Texas Tech University, 2500 Broadway, Lubbock, TX 79409, (2)Texas Tech University Department of Geosciences, PO Box 41053, Lubbock, TX 79409-1053

Fossils record geological change through time and across space. Conodonts, a group of extinct primitive vertebrates with microscopic feeding elements, were common marine fossils from the Cambrian to the earliest Jurassic. This study focuses on late Paleozoic (uppermost Pennsylvanian-lowermost Permian) conodonts from Kansas and Nebraska. The distribution of these conodonts was strongly influenced by glacial-interglacial cycles of the Late Paleozoic Ice Age, which controlled sea level within the Midcontinent Sea. Samples from units identified as the Americus, Lower Hughes Creek, Upper Hughes Creek, and Bennett cyclothems in each state were processed for conodonts. Elements were identified to species level where possible to characterize the fauna of each unit. This project first tests the correlation of these areas by comparing the faunas. The content and relative abundance of each fauna is compared between the localities (KS vs. NE) and through time at each locality to assess spatial and temporal patterns of change.
Session No. 3--Booth# 4

D1. Exploring Hazards, Life, and the Environment: Insights from the Past, Present, and Future (Posters)
Sunday, 9 March 2025: 1:30 PM-5:00 PM
Lower Level Lobby (Reynolds Performance Hall)

Geological Society of America *Abstracts with Programs.* Vol. 57, No. 1
doi: 10.1130/abs/2025SC-408204