

anterior region of the skull roof and in the palate, which lead us to believe these are two separate genera. We also include the information gained from this study into a phylogenetic analysis to test *Diceratosaurus* and the narrow morph's relationship to one another and to other nectrideans. We hypothesize that the narrow morph is more closely related to more derived nectrideans like *Diplocaulus* than to *Diceratosaurus*. The discovery of a second morph and these results could further support the conclusion that not only nectrideans, but lepospondyls as a group, are more diverse than originally thought.

Technical Session 17: Afrotheria & Mammal Macroevolution (Saturday, October 21, 2023, 8:00 AM)

NEW PALEONTOLOGICAL AND GEOLOGICAL DATA FROM THE MIDDLE MIOCENE OF NAZARENO, SOUTHERN BOLIVIA

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Global climate, floras, and faunas underwent substantial changes during the early to middle Miocene. The Central Andes preserve a rich fossil record of terrestrial paleoenvironments from this interval, making it one of the few Neotropical areas amenable to studying biotic responses to these changes. Here, we report new data from Nazareno, an expansive basin in southern Bolivia (~30 km of exposures). The few previous studies of this basin have focused on two areas in the south near the town of Arenales. A new area discovered by our team in 2022 ca. 15 km to the north has yielded a partial tortoise carapace (*Chelonoidis* sp.) and microvertebrates including rodents (*Acarechimys* sp.) and marsupials (Palaeothentidae; Abderitidae: cf. *Pitheculites*). Pedogenic development in this area is

greater than in southern sites and suggests high seasonality; it includes minor streaks and nodules of carbonate plus common green and red mottles within horizons of reddish mudstone. Twenty-one species of mammals of 17 families have been identified from the Nazareno Basin. Several species are shared with Cerdas and suggest an early middle Miocene (Langhian) age. A specimen of *Thoatherium* extends the geographic range of this litoptern nearly 3,000 km to the north and likely extends its temporal range by ≥ 2 million years. Stratigraphic studies of the southern basin support recognition of three primary units above a basal conglomerate. Conglomerate beds are mainly clast-supported, up to ~5 m thick, and pass eastward into sandy mudstone. The lower unit above the conglomerate is mainly composed of reddish mudstones with intervals of biotite-rich sandier interbeds. The middle unit includes three laterally traceable resistant units of conglomerate sandstone separated by thinner, less resistant beds of sandstone and mudstone. The upper unit, difficult to access, includes a prominent volcanic ash and laterally persistent lighter and darker bands of reddish mudstone. The sandstones are massive, sheetlike or fill wide channels, and represent confined and unconfined flow. The mudstones include thinly interbedded siltstone and claystone with distorted bedding and desiccation cracks plus reddish mudstone with clay- and sand-filled burrows, root casts, and mottles. They represent overbank and more proximal floodplain settings. No pedogenic carbonate was found, and 12 samples analyzed for pollen and phytoliths were barren. Vertebrate fossils occur throughout the section, mainly in mudstones.

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Regular Poster Session 4 (Saturday, October 21, 2023, 4:30 - 6:30 PM)

AN ANKYLOSAUR FEMUR FROM THE DUNVEGAN FORMATION OF NORTHEASTERN BRITISH COLUMBIA

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Little skeletal dinosaur material is known from the mid-Cretaceous of Canada, however, the