

## A Potential Biocorrelation of the Morisson, Lourinha, and Tendaguru Formations

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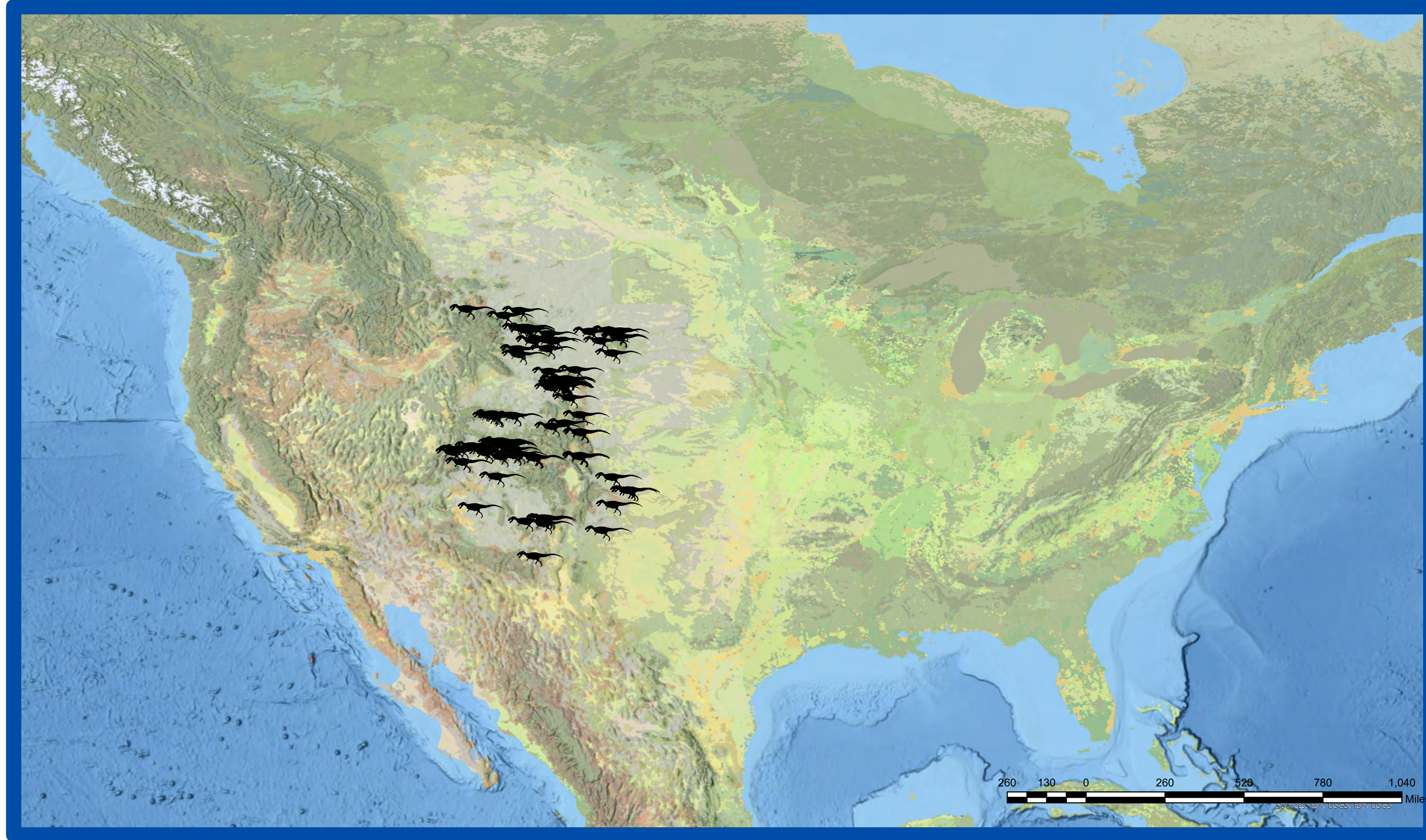
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# A Possible Biocorrelation of the Morrison and Lourinha Formations Based on Similar Dinosaur Populations

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Map #1: The American Morrison Formation is one of the most famous dinosaur-bearing layers in all of the world. It is particularly famous for its selection of sauropods: including Brontosaurus, Apatosaurus, Diplodocus, Camarasaurus, Brachiosaurus, Amphicoelias, and Barosaurus. It is also famed for the presence of Stegosaurus and an abundance of theropods.



Map #2: The Lourinha Formation in Portugal contains a number of similar dinosaur taxa to the American Morrison Formation. The Lourinha contains several sauropods: Lourinhasaurus, Dinheirosaurus, Lusotitan, and Zby, a selection of stegosaurus: Dacentrurus, Miragaia, and Dracopelta, and several fragmentary theropods



Map #3: A reconstruction of the continents as they would have appeared during the Jurassic with Morrison and Lourinha fossil localities marked in pink. The formations share several dinosaur taxa which leads to many theories about the relationship between the two. The shared taxa include Allosaurus, Torvosaurus, Ceratosaurus, Dryosaurus, and Camptosaurus. One theory about these particular taxa is that they may have been small enough to slowly "island hop" between the continents over time, but the bulkier sauropods and stegosaurus could not.



Image: A representation of one of the most prolific dinosaurs in both formations: Allosaurus

Discussion: The similar dinosaurs of these two populations have lead to a lot of theorizing among paleontologists about how they could be related. In addition to the matching taxa, both formations boast robust sauropod populations, stegosaurus, and assorted other predators. The "island hopping" theory is the most popular.

Sources:

Paleobiology Database. <https://paleobiodb.org/navigator/>.  
Foster, John Russell. Jurassic West: The Dinosaurs of the Morrison Formation and Their World. Indiana University Press, 2020.  
Base Maps from Esri and Gplates