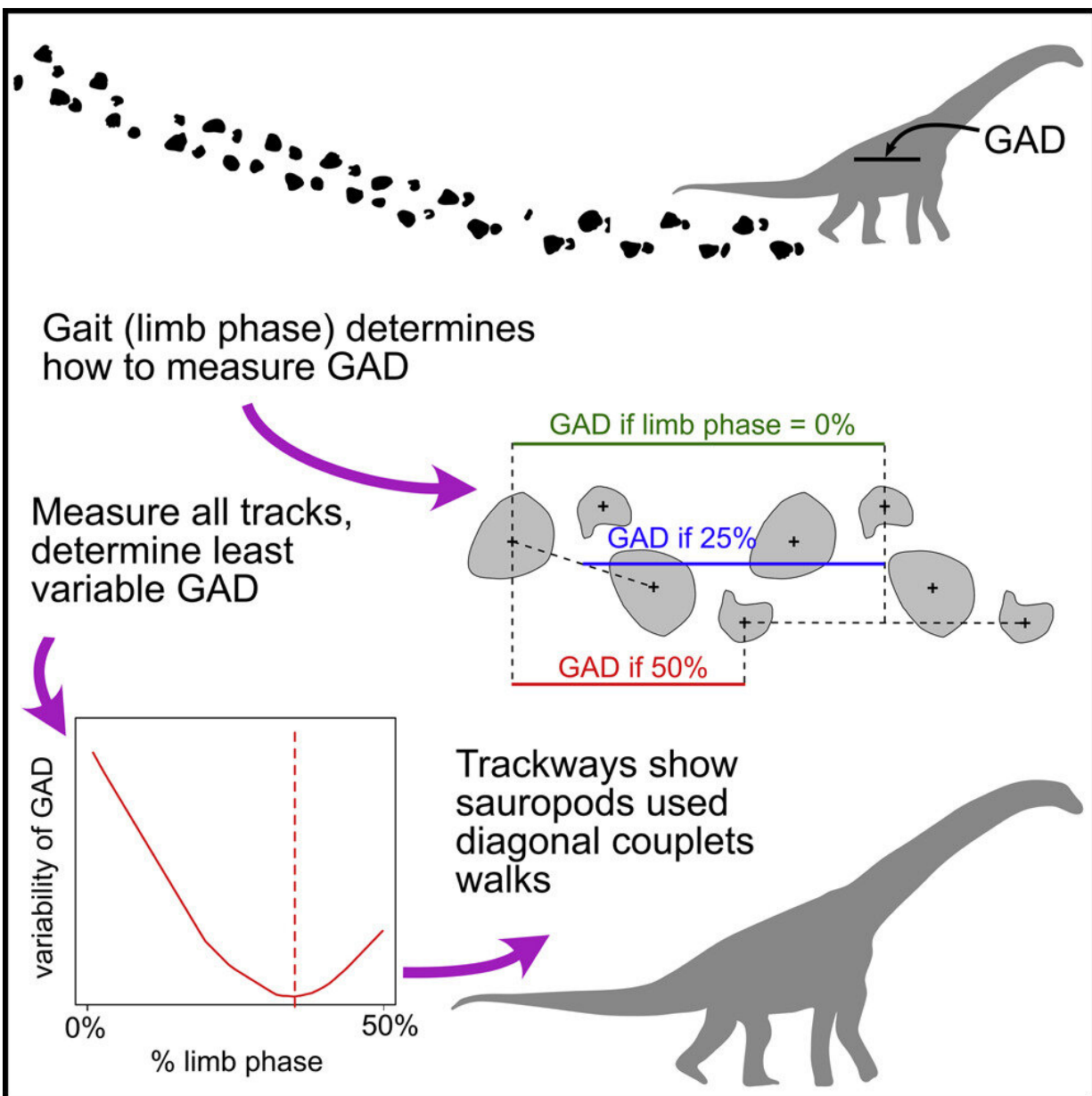


Study of sauropod tracks shows the dinosaurs had a gait unlike any creature alive today

March 3 2022, by Bob Yirka



Graphical abstract. Credit: *Current Biology* (2022). DOI: 10.1016/j.cub.2022.02.012

Using a new method of studying dinosaur tracks, a pair of researchers at Liverpool John Moores University has found that sauropods walked with a gait unlike any creature alive today. In their paper published in the journal *Current Biology*, Jens Lallensack and Peter Falkingham describe this new method.

Prior research has shown that elephants walk by taking two steps on one side, then two steps on the other, over and over. Because they are so large, many paleontologists have assumed big [dinosaurs](#) walked with a similar gait. In this new effort, the researchers have found that not to be the case.

Prior research surrounding dinosaur trackways convinced the researchers that the conventional method of footprint analysis does not give a complete picture of how a given dinosaur may have walked. They also noted that because of the massive size of very large dinosaurs such as sauropods, walking like an elephant would have required a lot of energy just to keep from toppling over. So they created a new method to study trackways that involves accounting for variations in tracks and timing as an animal moves forward. They analyzed the trackways for three sauropods by measuring the distance between footprints and noting whether they were made by a front or rear foot and whether it was left or right. Next, they calculated how limb phases fit with the tracks they were measuring, and that allowed them to extrapolate the gait.

The researchers tested their new approach by using it to measure the

trackways of several kinds of modern animals, including [elephants](#). Convinced it gave a better representation of a given animal's gait, they used it to study trackways left by several sauropods. Via this method, they found that a front foot touched down on the ground just before a hind foot on the opposite side was lifted. This [gait](#) suggests the giant creatures didn't wobble as they walked, thereby preserving energy.

More information: Jens N. Lallensack et al, A new method to calculate limb phase from trackways reveals gaits of sauropod dinosaurs, *Current Biology* (2022). [DOI: 10.1016/j.cub.2022.02.012](https://doi.org/10.1016/j.cub.2022.02.012)

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