

- Dinosaur tracks were first discovered at Ardley Quarry, near Bicester in Oxfordshire, in the late 1990s. More than 40 trackways of sauropod and theropod dinosaurs were discovered, some stretching over 180 metres in length. This made it by far the largest and most significant dinosaur track site in the UK.
- The 1990s dinosaur tracks are no longer accessible as the site was buried through planned restoration. Because of when they were discovered there are no 3D digital models of the site available. The rock layer containing the footprints in the Ardley area has been designated as a Site of Special Scientific Interest (SSSI).
- The new tracks were discovered in 2023 at nearby Dewars Farm quarry by a quarry worker. The tracks occur in the base of an active working quarry in limestone dating to 166 million years ago, in the Middle Jurassic Period.
- A large-scale excavation of the site was conducted by a team of over 100 scientists, volunteers and students from the Oxford University Museum of Natural History, Oxford University and the University of Birmingham in June 2024. The excavation was supported by the quarry operators, Smiths Bletchington.
- Approximately 200 dinosaur footprints were uncovered, forming five trackways. One of these was probably made by a large carnivorous dinosaur, *Megalosaurus*, and four by giant herbivorous sauropod dinosaurs similar to *Diplodocus*. Individual track ways stretch for 50–150 metres.
- This is the most important discovery of dinosaur tracks in the UK for over 25 years.
- The research team used drone and conventional photography to image the site. Over 20,000 photographs have been combined to create 3D models of both the complete site and individual footprints. These models are being used to study the locomotion of the dinosaurs, estimate their size and speed, and understand more about the environment in which they lived.
- During the Middle Jurassic Oxfordshire was below a warm tropical sea with patches of mudflats and pockets of shallow marine lagoons.
- *Megalosaurus* was the first dinosaur to be named, 200 years ago in 1824, and was discovered in Middle Jurassic rocks in Oxfordshire. It may have reached up to 9 metres in length, weighed more than 2 tonnes (similar to a white rhino), walked on two legs, and would have been a fearsome predator.
- Each *Megalosaurus* track is around 65 cm in length, with a stride length of about 2.7m. Measurements of the *Megalosaurus* tracks can be used to estimate the speed at which the dinosaur was walking: around 3 miles per hour (5 km per hour), similar to an average adult human walking speed.

- The sauropod tracks may have been made by a dinosaur called *Cetiosaurus*, reaching up to 18 metres in length, and weighing 10 tonnes or more. The longest sauropod trackway at Dewars Farm has tracks that are each around 90 cm in length and their spacing suggests that the sauropod was walking at a similar speed to the *Megalosaurus* (about 5 km per hour).
- *The future of the site:* Dewars Farm is still a working quarry with no public access, and will remain so in the medium term. However, we are actively working with Smiths Bletchington and Natural England on options for preserving the site for the future.