

Footprints discovered from the last dinosaurs to walk on UK soil

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A palaeoartist's impression of the dinosaurs and their footprints. Credit: Megan Jacobs

Footprints from at least six species of dinosaur—the very last dinosaurs to walk on UK soil 110 million years ago—have been found in Kent, a new report has announced.

The discovery of dinosaur footprints by a curator from Hastings Museum and Art Gallery and a scientist from the University of Portsmouth is the last record of dinosaurs in Britain.

The footprints were discovered in the cliffs and on the foreshore in Folkestone, Kent, where stormy conditions affect the cliff and [coastal waters](#), and are constantly revealing new fossils.

Professor of Palaeobiology, David Martill, said: "This is the first time dinosaur footprints have been found in strata known as the 'Folkestone Formation' and it's quite an extraordinary discovery because these dinosaurs would have been the last to roam in this country before becoming extinct.

"They were walking around close to where the White Cliffs of Dover are now—next time you're on a ferry and you see those magnificent cliffs just imagine that!"

The footprint fossils formed by sediment filling the impression left behind when a dinosaur's foot pushes into the ground, which then preserves it.

The footprints are from a variety of dinosaurs, which shows there was a relatively high diversity of dinosaurs in southern England at the end of the Early Cretaceous period, 110 million years ago.

They are thought to be from ankylosaurs, rugged-looking armoured dinosaurs which were like living tanks; theropods, three-toed flesh-eating dinosaurs like the Tyrannosaurus rex; and ornithopods, plant-eating 'bird-hipped' dinosaurs so-called because of their pelvic structure being a little bit similar to birds.

Philip Hadland, Collections and Engagement Curator at the Hastings

Museum and Art Gallery is lead author on the paper. He said: "Back in 2011, I came across unusual impressions in the [rock formation](#) at Folkestone. They seemed to be repeating and all I could think was they might be footprints.

"This was at odds with what most geologists say about the rocks here, but I went looking for more footprints and as the tides revealed more by erosion, I found even better ones. More work was needed to convince the scientific community of their validity, so I teamed up with experts at the University of Portsmouth to verify what I'd found."

Most of the findings are isolated footprints, but one discovery comprises six footprints—making a 'trackway," which is more than one consecutive print from the same animal.

This trackway of prints are similar in size to an elephant footprint and have been identified as likely to be an *Ornithomichnus*, of which similar, but smaller-sized footprints have also been found in China from the same time period.

The largest footprint found—measuring 80 cm in width and 65 cm in length—has been identified as belonging to an *Iguanodon*-like dinosaur. *Iguanodons* were also plant-eaters, grew up to 10 meters long and walked on both two legs or on all fours.

Professor Martill said: "To find such an array of species in one place is fascinating. These dinosaurs probably took advantage of the tidal exposures on coastal foreshores, perhaps foraging for food or taking advantage of clear migration routes."

In the Late Cretaceous period, this part of Kent, and indeed much of the United Kingdom was beneath a shallow sea, but this study also shows unequivocally that the Folkestone Formation was inter-tidal.

Mr Hadland said: "Aside from finding that [dinosaurs](#) went to the seaside just like their modern relatives the birds, we have also found new evidence that changes the interpretation of the geology of the Folkestone Formation strata.

"It just goes to show that what has been previously published about the geology of an area isn't always correct and new insights can be made. There is also the potential for almost anyone to make a discovery that adds to scientific knowledge from publicly accessible geological sites."

The paper is published in *Proceedings of the Geologists' Association* and some of the [footprints](#) are currently on display at Folkestone Museum.

More information: Philip T. Hadland et al, The youngest dinosaur footprints from England and their palaeoenvironmental implications, *Proceedings of the Geologists' Association* (2021). [DOI: 10.1016/j.pgeola.2021.04.005](#)

Provided by University of Portsmouth

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