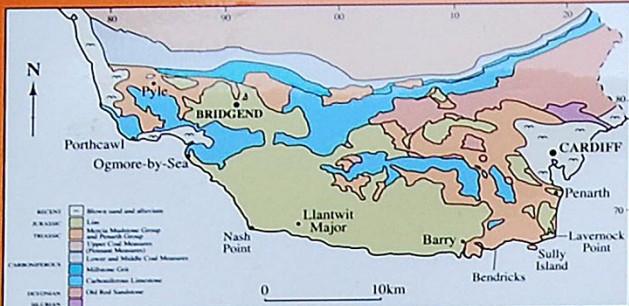


# GEOLOGISTS ASSOCIATION - SOUTH WALES GROUP



# CYMRUETHAS Y DAEREGWYR - GRŮP DE CYMRU



Dinosaur fossils are known from only a few horizons in the Mesozoic rocks of South Wales; rare, mostly isolated bones, representing just a few species, have been found at five localities in the Vale of Glamorgan. Although currently known from only two localities, footprints are much more abundant.

Ceir hyd i ffosilau deinosoriaid dim ond mewn ambell haenlin yng nghreigiau Mesosig de Cymru. Cafwyd hyd i ychydig lawen o esgyrn unigol, yn bennaf, sy'n cynrychioli ambell rywogaeth yn unig, ar bum safle ym Mro Morgannwg. Mae olion traed yn fwy niferus o lawer, er mai ar ddau safle'n unig y daethpwyd ar eu traws hyd yma.



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All the dinosaur bones and footprints are restricted to rocks of late Triassic (Norian) to early Jurassic (Hettangian) age. During this time the Vale of Glamorgan was initially a low lying desert, pierced by a line of limestone hills, which was later gradually inundated by the sea. The hills became islands, which acted as refuges for the local fauna. Although the climate was generally hot and arid, heavy downpours occurred from time to time, and caused local flash flooding.

Mae holl esgyrn ac olion traed y deinosoriaid yn gyfyngedig i greigiau sy'n dyddio o'r cyfnod Triasig diweddar (Noriaidd) hyd y cyfnod Jurasig cynnar (Hettangaidd). Yn gynnar yn y cyfnod hwn roedd Bro Morgannwg yn ddifffidur isel y codai cadwyn o fryniâu calchfaen uwchlaw iddo, cyn y cafodd y tir ei raddol joddi gan y môr. Daeth y bryniâu yn ynysoedd a fu'n noddfa ar gyfer y ffawna lleol. At ei gilydd, roedd yr hinsawdd yn boeth ac yn sych ond o dro i dro cafnodwyd cyfnodau o law trwm a achosodd ffachlifau'n lleol.

# DINOSAURS IN SOUTH WALES

# DEINOSORIAID YN NE CYMRU



© NMGW Liverpool Dinosaur footprints were first discovered at a locality near Porthcawl in 1878, in rocks of late Triassic (Norian) age. These consisted of a five-print trackway of a medium sized, tridactyl theropod, formerly identified as 'Brontozoum', but now assigned to the ichnogenus *Anchisauripus*. Sometime later, a single block of similar age was found in the grounds of Nottage Court, also near Porthcawl; it contained three footprints belonging to two different animals, assigned to the ichnogenus *Anchisauripus* and *Otozoum*. The latter is considered to be the footprint of a prosauropod similar to *Thecodontosaurus*.

Cafwyd hyd i olion traed deinosoriaid am y tro cyntaf ar safle ger Porth-cawl, yn 1878, ac mewn creigiau sy'n dyddio o'r cyfnod Triasig diweddar (Noriaidd). Mae'r rhain yn cynnwys llwybr pum-bys theropod tridactyl, a adwaenid gynt fel 'Brontozoum' ond a briodolir, bellach, i'r ichnogenws *Anchisauripus*. Ychydig yn fwy diweddar, cafwyd hyd i faen o oddeutu'r un oedran, ar dir Llys Nottais, sydd hefyd ger Porth-cawl. Ynddo roedd tri ôl-troed a berthynai i ddau anifail gwahanol, a briodolir i'r ichnogenws *Anchisauripus* ac *Otozoum*. Credir bod yr olaf yn ôl-troed prosawropod tebyg i *Thecodontosaurus*.

Of the isolated dinosaur bones that have been found, the most spectacular is the mould of a lower jaw of *Zanclodon*, a 4m-long theropod; it was found in a block of sandstone of late Triassic (Rhaetian) age near Pyle in 1898. Other bones have been recovered from marine sediments of early Jurassic (Hettangian) age in the Penarth-Lavernock area.

O'r holl esgyrn unigol y cafwyd hyd iddynt, yr un mwyaf trawiadol yw mowld rhan isaf gen *Zanclodon*, theropod 4 m o hyd. Cafwyd hyd iddo ger Y Pyl yn 1898 mewn bloc o dywodfaen Triasig diweddar (Rhaetiaidd). Daethpwyd ar draws esgyrn eraill yn ardal Penarth-Larnog mewn gwaddodion morol yn dyddio o'r cyfnod Jurasig cynnar (Hettangaidd).



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The bones of diverse small animals, including dinosaurs, other reptiles and early mammals were washed into fissures in the limestone hills during periods of heavy rain. In some of these fissure-fill deposits, of late Triassic to early Jurassic age, large numbers of small bones accumulated. Amongst these, three one-metre-long, juvenile skeletons of the prosauropod dinosaur *Thecodontosaurus* have been identified from material collected near Bridgend in the 1950s.



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Yn ystod y cyfnodau o law trwm golchwyd esgyrn gwahanol anifellaid bach, gan gynnwys deinosoriaid, ymlusgiaid eraill a mamollion cynnar i mewn i agennau yn y bryniâu calchfaen. Mewn rhai o'r dyddodion llenwad-agen hyn, sy'n dyddio o'r cyfnod Triasig diweddar hyd y cyfnod Jurasig cynnar, ymgasglodd nifer fawr o esgyrn bach. Ymhlith y rhain, llwyddwyd i adnabod sgerbwdd tri deinosor ifanc, meir o hyd, o'r prosawropod *Thecodontosaurus*, mewn ddefnydd a gasglwyd ger Pen-y-bont ar Ogwr yn y 1950au.



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In 1974, over 400 small, three-toed dinosaur footprints were discovered in red siltstones of late Triassic (Norian) age on the coast at The Bendricks, near Barry. These have been assigned to the ichnogenus *Gallator*, and are thought to have been made by a small (2 metre long) theropod, similar to *Coelophysis*. Further investigation of this area has revealed footprints from a total of five ichnogenus, including *Anchisauripus* and *Otozoum*, as well as other non-dinosaurian reptiles, found at a number of horizons along the coast between The Bendricks and Sully Island. This area is one of the most prolific Upper Triassic dinosaur footprint sites in the UK.

Yn 1974 darganfuwyd dros 400 o olion traed bach deinosor tri-bys mewn cerrig silt coch yn dyddio o'r cyfnod Triasig diweddar (Noriaidd) ar draeth Bendrick, ger Y Barri. Priodolwyd y rhain i'r ichnogenws *Gallator* ac fe gredir iddynt gael eu creu gan theropod bach (2 m o hyd), tebyg i *Coelophysis*. Mae gwaith ymchwil pellach yn yr ardal hon wedi dwyn i'r amlwg olion traed pum ichnogenws, gan gynnwys mewn nifer o haenlinau ar hyd yr arfordir rhwng traeth Bendrick ac Ynys Sili. Dyma un o'r ardaloedd gorau yn y DU ar gyfer olion traed deinosoriaid y cyfnod Triasig Uchaf.

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