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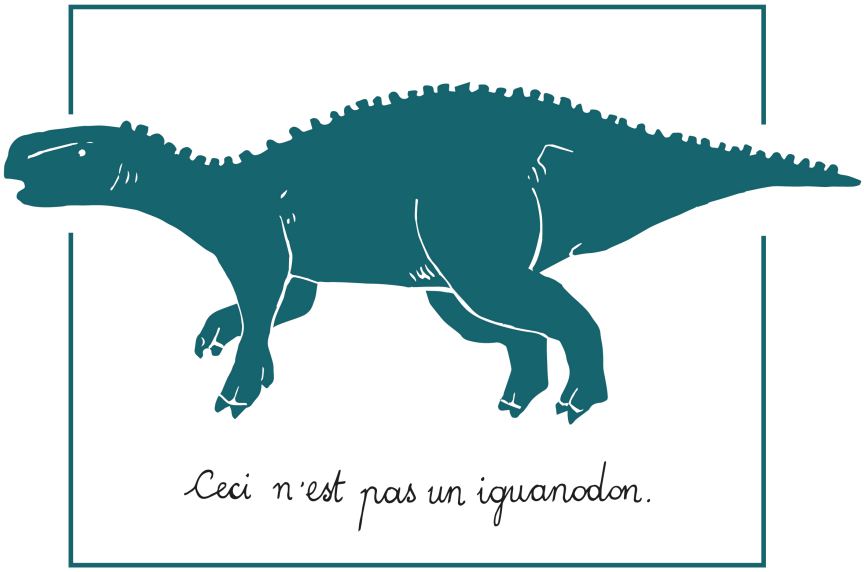

July 2 · 3 · 4 · 5 · 6 – Royal Belgian Institute of Natural Sciences

Bernissart workshop and field trip in La Malogne underground quarry

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CRETACEOUS DISEASES: A PALAEOPATHOLOGICAL SURVEY OF THE *IGUANODON* SPECIMENS FROM BERNISSART (BELGIUM)

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The fossil deposit of Bernissart (Belgium) has yielded one of the largest dinosaur collections in Europe. Between 1878 and 1881, at least 43 specimens of *Iguanodon* were found in what is known today as the *Iguanodon* Sinkhole. Thanks to these skeletons, *Iguanodon* is one of the most famous dinosaur taxa, however some aspects of its biology remain enigmatic. Although new studies are covering topics like metabolism, growth, locomotion and intraspecific variability, the possible presence of palaeopathologies has yet to be established. Here, we present a survey of fossilised maladies recognised in the Bernissart specimens, which comprises traumas, infections, spondyloarthropathies and developmental anomalies. The pathologies have been subdivided by body region, with particular occurrences in dorsal vertebrae, the distal region of the tail, ribs, and pes. Some of these "lesions" are considered pseudopathologies because Bernissart *Iguanodon* specimens suffer from pyrite oxidation, which results in deformation and/or cavities resembling pathological conditions. The total number of palaeopathologies in Bernissart *Iguanodon* is lower than in other ornithopods, but this apparent "good health" of the population should be examined under the lens of the osteological paradox. It is possible that these dinosaur populations were comprised of healthy individuals and others suffering from severe diseases which gave no time for their bodies to react and start the healing process. In the future, the data collected from the Bernissart specimens will be included in a complete list of ornithopod palaeopathologies to analyse any phylogenetic and/or ecological influences on the occurrence of traumas and diseases in the clade.