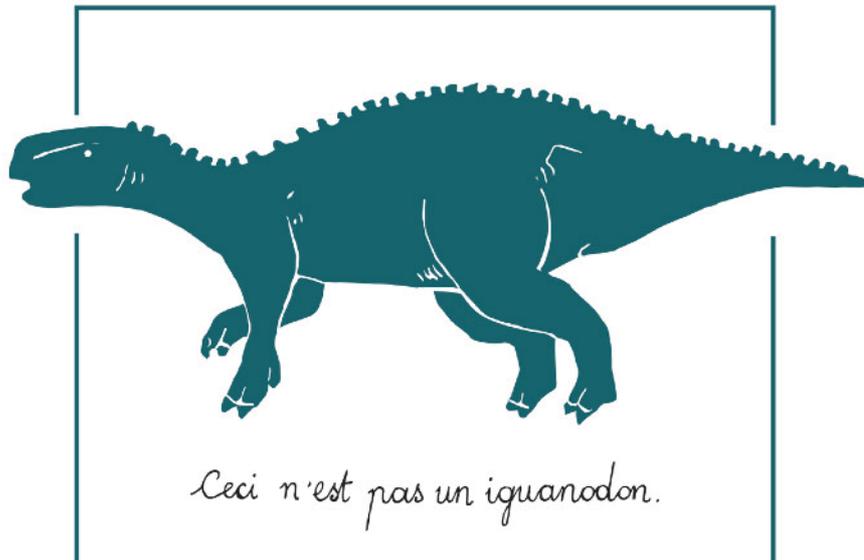




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PALAEOPATHOLOGY OF *IGUANODON* SPECIMENS FROM MUSEUMS IN BELGIUM AND BRITAIN, AND A COMPARISON WITH PATHOLOGICAL RATES IN HADROSAURIDAE

F. Bertozzo^{1*}, E. Murphy¹, A. Ruffell¹, P. Godefroit²

¹Archaeology and Palaeoecology, School of Natural and Built Environment, Queen's University Belfast, Belfast BT7 1NN, Northern Ireland.

²Royal Belgian Institute of Natural Sciences, Bruxelles, Belgium.

*presenting author, fbertozzo01@qub.ac.uk

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The study of distribution and occurrence of fossilised injuries and diseases can unveil aspects linked to the behavior of the affected species, as well as their interaction with the environment. Palaeopathologies are preserved when they affect the skeleton, and the injured animal survived long enough for the immune system to react and start the healing process. For this reason, palaeopathological analyses were, and often still are, confined to case-studies. Hypotheses regarding ecological and phylogenetic influences can be assumed, however, using a substantial database of pathologies from a selected clade. Among Dinosauria, Ornithopoda is the clade that shows the highest prevalence of pathologies. In the analysed *Iguanodon* material from NHMUK and RBINS, 90 pathologies have been identified, comprising traumae, infections, spondyloarthropathies and developmental anomalies. The pathologies have been subdivided by body region, with the highest number found in the dorsal vertebrae (17), middle region of the tail (14), pelvic girdle (8) and the pes (19). Of the total number, however, 18 lesions are considered as possible pseudo-pathologies. The injuries recorded are notably lower than those occurring in Hadrosauridae, where almost one thousand are currently recognized. Nonetheless, conclusions can still be drawn even when preservation and collection biases are considered: the tail was the area that suffered most from injuries (24 in *Iguanodon*) in both clades, while osteochondrosis (aka, cartilage developmental failure) extensively affected hadrosaurid pedal phalanges, with no evidence in non-hadrosaurid iguanodontians. Analyses of further collections will extend the current palaeopathological database, thereby enhancing behavioral and ecological interpretations.