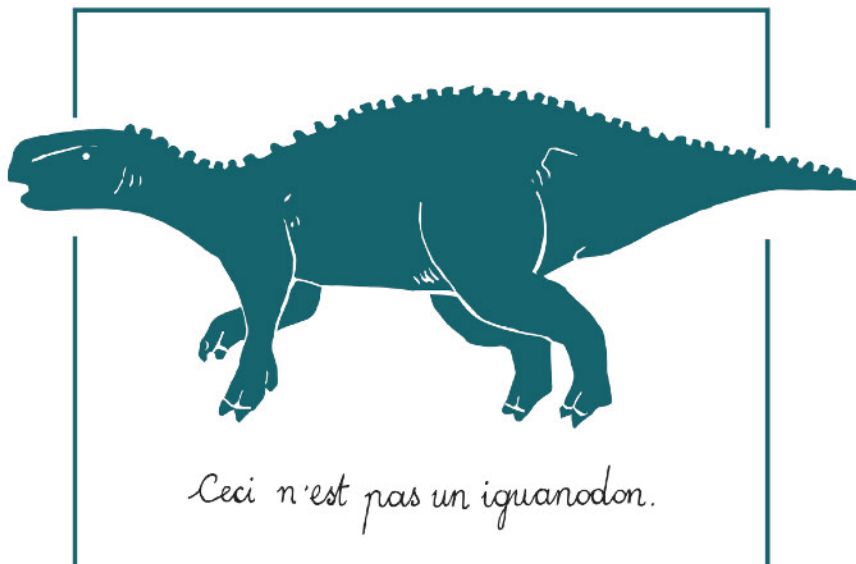




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OLD IGUANODON REMAINS SHED NEW LIGHT ON THE EVOLUTION OF ORNITHOPOD INTEGUMENT

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Iguanodon is one of the most famous dinosaur genera, being one of the first dinosaurs ever discovered. Thanks to the high number of individuals found in 1878 in Bernissart (Belgium) we have a good understanding of the anatomy and the biology of the species. However, the skin found in association with the skeletons has never been discussed in detail. Here, we report an extensive description of tubercle morphology and body distribution of *Iguanodon* skin. Some patches show small tubercles (between 1 and 3 mm in diameter, with slight variation in shape) on the left side of the proximal region of the tail, with irregularly positioned flower-like feature-scales. The same patterns are also represented by isolated, fragmentary skin material. Whilst small and nearly homogeneous tubercles are shared with hadrosaurids and other iguanodontian taxa (*Mantellisaurus*, *Tenontosaurus*), the flower-like feature-scales are less common, found only in *Lambeosaurus*. A shared feature between non-hadrosaurid ankylopollexians as *Iguanodon* and hadrosaurids comprises the proportions between body size and tubercles, with small scales in a large body. We hypothesize that the smaller tubercles allowed more flexibility in the body of these ornithopods. Small tubercles are also present in non-ornithopod ornithischians, such as in *Psittacosaurus*. Nonetheless, tubercles increase in size with body volume along ceratopsian evolution, in contrast with the skin homogeneity in the large, derived ornithopods. Based on these data, we have prepared a new life reconstruction of *Iguanodon* modelled on the photogrammetry of the original skeleton.