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NEW ORNITHOPOD DINOSAUR REMAINS FROM THE LATE JURASSIC LOURINHÃ FORMATION

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The Upper Jurassic Lourinhã Formation, Portugal, is one of the richest lithostratigraphic units yielding vertebrate fauna in Europe, which shows paleobiogeographic affinities with the coeval Morrison Formation and to a certain degree with the slightly younger Tendaguru Formation. Its dinosaurian fauna has yielded a diverse assemblage of sauropods, theropods and thyreophorans. By contrast, neornithischian and more specifically ornithopod taxa are scarce. Two endemic species of iguanodontians have been so-far recognized, the dryosaurid Eousdryosaurus nanohallucis and the camptosaurid Draconyx loureiroi. Here we report undescribed ornithopod material housed at Museu da Lourinhã (ML). Most notably, two associated partial dorsal vertebrae (ML 452), an isolated dorsal neural arch (ML 864) and a large isolated scapula (ML 2042) indicate the presence of an unreported large sized ornithopod. The vertebrae present stout centra, tall and anteroposteriorly wide neural spine encased by two lateral depressions. The transverse processes are proportionately short, and the prezygoapophyses inclined of 45° respect to one another. The scapula is dorsoventrally bowed, with convergent dorsal and ventral margin towards the distal part of the scapular blade. The proximal extremity flares gently, being concave on the lateral surface. The acromion process is rounded and the underlying coracoid suture suddenly deflects into glenoid. The general morphology and size of ML 452, ML 864 and ML 2042 is not consistent with possible dryosaurid or camptosaurid affinities, while closely resembles larger and more derived species present in Early Cretaceous ecosystems. This new finding suggests that the diversity of Late Jurassic iguanodontians may be underestimated.