

ments and guides to a right knowledge of these conditions, draws from this singular and extraordinary discovery the confirmation of a hope, that the state of the ancient land may not for ever be wholly concealed from patient inquiry.

That these are really the jaws of mammalia — that the genus was at least allied to *Didelphis*, we may safely admit on the competent anatomical authority of Cuvier and Agassiz, notwithstanding the easy conjecture, that they might belong to *Pterodactylus*, of which bones but not jaws occur at Stonesfield. When we regard the pointed lobes of the teeth, and consider the position of the incisors, and the shape of the condyles, there appears no reason to doubt that the animal was insectivorous. It is worth remarking that elytra of land beetles (*Buprestis*?) are found in the same deposit, with terrestrial plants and other indications that the laminated rock, in which the specimens lie, was formed near the sea shore. No other parts of the animal have yet been found than the lower jaw, — there is no ascertained or even very probable instance of the occurrence of land or marine mammalia in older rocks than the Stonesfield oolitic beds, — none have yet been discovered in any of the superior strata of the oolitic system, — it is merely a conjecture that some bones in the marls of the cretaceous system of New Jersey and Delaware may belong to *Balæna*. With the exception of Stonesfield, it is only in the tertiary strata and superficial deposits that we can positively admit the occurrence of fossil marine or land mammalia at all.

It is chiefly in anthracitic tertiaries, as near Zurich ; in lacustrine sediments, as at Gmünd and Oeningen ; — in gypseous deposits from fresh water, as at Montmartre ; — in shelly marls, as at Market Weighton ; — in diluvial clay or gravel, as at Harwich, — at Lawford, — at Hessele ; — or in more recent peat bogs, as in Ireland, the Isle of Man, Lancashire ; — or in caves and fissures of the rocks, as at Kirkdale, and Gibraltar, that the bones of mammiferous quadrupeds occur.