

cous, articulated, or vertebral animals, is entombed in lacustrine sediments.

Purely lacustrine deposits are almost unknown among any of the stratified rocks of earlier than tertiary date. The laminated carboniferous limestones of Burdie house, near Edinburgh, can hardly be admitted an exception, any more than the calcareous beds of Ardwick and Lebot wood, which lie nearly at the top of the coal formation of England. These deposits may indeed be thought to mark the influence of fresh water predominating over that of an estuary, such as we suppose to have received the sediments and vegetable relics which constitute the coal formation above millstone grit.

Fresh water products again appear in the midst of the oolitic strata of Yorkshire, accompanied by circumstances almost perfectly comparable to those which characterise the true coal formations; the same fact is repeated in the strata of the Wealden; but in each of these instances the observers most attentive to the phenomena have decided that they indicate fluviatile not lacustrine accumulation. The argillaceous and calcareous strata of Purbeck and the upper Wealden beds certainly come nearer to the notion of quiet sediments, collected in a lake, than any other deposits of secondary or earlier date.

It is therefore very interesting and important to study with care and perseverance the varied mineral characters of the supracretaceous lacustrine sediments; and to compare the organic contents of those whose place on the scale of marine strata is known, in order to obtain rules for judging of the relative age of others which are less favourably circumstanced. Some of the results of this study we propose to exemplify, in the following brief notices of remarkable lacustrine formations.

Upon a general review of the ossiferous deposits of Europe, we discover two very distinct assemblages of animal remains, belonging to two obviously distinct and widely separated geological periods, both anterior to the