

§ 2. Local Development

Britain.—Oligocene strata are confined to one small area in this country. They occur in the Hampshire basin and Isle of Wight, where, resting conformably upon the top of the Eocene deposits, they consist of sands, clays, marls, and limestones, in thin-bedded alternations. They were accumulated partly in the sea, partly in brackish, and partly in fresh-water. They were hence named by Edward

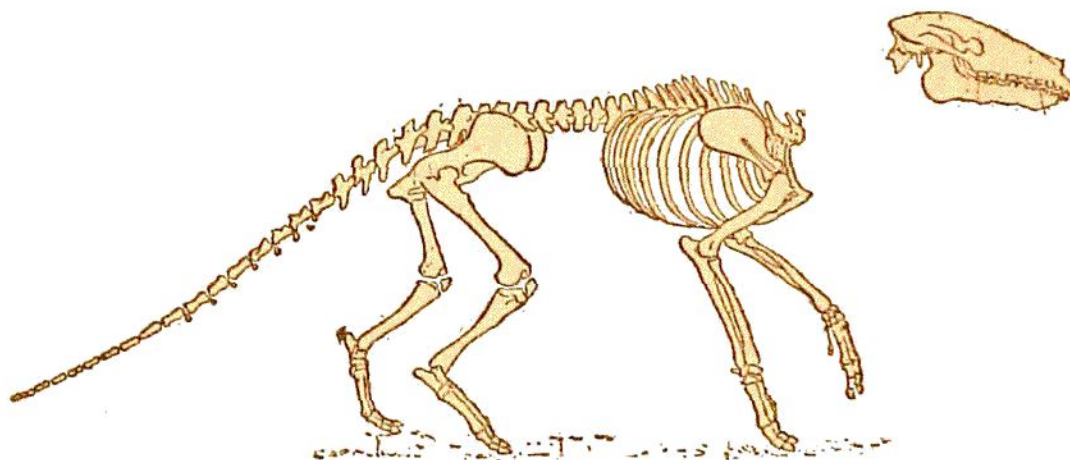


Fig. 435.—*Anoplotherium commune*, Cuv.

Forbes "the fluviomarine series," and were divided by him and Mr. Bristow into the following groups in descending order:⁶⁰

Hamstead Beds.—(b) Marine stage with <i>Corbula</i> , <i>Cytherea</i> , <i>Ostrea callifera</i> , <i>Voluta</i> , <i>Natica</i> , <i>Cerithium</i> and <i>Melania</i>	31 ft.
(a) Fresh-water, estuarine and lagoon stage, with <i>Unio</i> , <i>Cyrena</i> , <i>Cyclas</i> , <i>Paludina</i> , <i>Hydrobia</i> , <i>Melania</i> , <i>Planorbis</i> , <i>Cerithium</i> (rare), turtles, crocodiles, mammals, leaves and seeds	225 "
Bembridge Beds.—(b) Bembridge marls—a fresh-water, estuarine and marine series of clays and marls, with <i>Viviparus</i> (<i>Paludina</i>), <i>Melania</i> , <i>Melanopsis</i> , <i>Limnæa</i> , <i>Cyrena</i> , <i>Unio</i> , <i>Ostrea</i> , <i>Cytherea</i> , <i>Mytilus</i> , <i>Nucula</i>	70-120 "
(a) Bembridge Limestone—full of fresh-water shells (<i>Limnæa</i> , <i>Planorbis</i> , etc.), and sometimes with many land-shells (<i>Bulimus</i> , <i>Achatina</i> , <i>Helix</i> , etc.)	15-25 "
Osborne Beds.—Marls, clays, shales and limestones, with <i>Limnæa</i> , <i>Planorbis</i> , <i>Paludina</i> , <i>Melanopsis</i> , <i>Melania</i> , <i>Chara</i> , etc.	80-110 "
Headon Beds.—(c) Upper stage, consisting of fresh-water clays, marls and bands of limestone, with <i>Potamomya</i> , <i>Limnæa</i> , <i>Cyrena</i> , <i>Unio</i> , <i>Potamides</i> , <i>Planorbis</i> , <i>Paludina</i> , <i>Bulimus</i> , etc.	40-60 "

⁶⁰ "Geology of the Isle of Wight," Mem. Geol. Survey, 2d edit. p. 124. The grouping as here given has been slightly modified by Mr. C. Reid in the course of a re-survey of the Isle of Wight. The strata were formerly regarded as Upper Eocene.