

be a genus unknown in Europe (p. 153), is, as I learn from Mr. Woodward, a living Sicilian shell, called by some naturalists *C. panormitana*. With these fossils, and with the *Hippopotamus* and monkey above alluded to, the remains of *Rhinoceros leptorhinus* are found; while the accompanying elephant is not the Mammoth, as formerly imagined, but, according to Dr. Falconer, *Elephas antiquus*, and sometimes *E. priscus*.

It is still a matter of discussion whether the submergence of a great part of the Southeast of England beneath the sea of the glacial epoch, during which the Northern erratics of Norfolk and Suffolk, and of Highgate Hill, near London, were drifted southwards by ice, took place before or after the origin of these deposits at Grays, Ilford, and other places on the banks of the Thames; but it is quite clear that after those fluviatile beds were formed, a great sheet of ochreous gravel was spread out over the lower levels of the same valley, and in it we find buried the remains of Arctic quadrupeds. This ochreous gravel extends from East to West, from above Maidenhead, through London, to the sea, for a distance of 50 miles, having a width varying from 2 to 9 miles, and a thickness of from 5 to 15 feet.\* In many places it contains the bones and teeth of the Siberian Mammoth (*E. primigenius*) and Siberian Rhinoceros (*R. tichorhinus*), together with remains of the reindeer, horse, and other quadrupeds.

Recently (1855) three fossil skulls, referred by Prof. Owen to the Musk-buffalo (*Bubalus moschatus*), a well-known living inhabitant of Arctic regions, have also been discovered; one of them in the valley of the Thames at Maidenhead, and the other two in gravel of the same age near Batheaston, in the valley of the Avon.

The same musk-buffalo was met with about 20 years ago in the suburbs of Berlin, in the hill called the Kreuzberg, imbedded in northern drift, and with it the Siberian Elephant and Rhinoceros, together with species of horse, deer, and ox.†

Among the fossil mammalia of another locality in the same drift of North Germany, Dr. Hensel, of Berlin, has detected, near Quedlinburg, the Norwegian Lemming, *Myodes lemmus*, and another species of the same family called by Pallas *Myodes torquatus* (by Hensel *Misothermus torquatus*), a still more Arctic quadruped found by Parry in latitude 82°, and which never strays farther south than the northern borders of the woody region. Professor Beyrich also informs me that the remains of the *Rhinoceros tichorhinus* were obtained at the same place.‡ In this "diluvium," as it is termed by many, no instance has as yet

\* Prestwich; Geol. Quart. Journ., vol. xii. p. 131.

† I was shown in the Berlin Museum, in 1856, part of the skull of the *Bubalus moschatus*, correctly named in the catalogue of the Museum for 1837, the year after its discovery, by Professor Quenstedt, at that time curator. The associated Kreuzberg fossils are enumerated in Leonhard and Bronn's Jahrbuch, 1836, p. 215.

‡ Zeitschrift der Deutsch. Geol. Gesellschaft, vol. vii. (1855), p. 548, &c.