

with in the lower level gravels of the Somme (p. 134), where large blocks of sandstone seem to imply that ice once played a part in their transportation, it may be well to consider, before proceeding farther, what geographical and climatal conditions are indicated by the presence of these fossil pachyderms.

It is now very generally conceded that the mammoth and tichorhine rhinoceros were fitted to inhabit northern regions, and it is therefore natural to begin by asking whether the extinct hippopotamus may not in like manner have flourished in a cold climate. In answer to this enquiry, it has been remarked, that the living hippopotami, anatomically speaking so closely allied to the extinct species, are so aquatic and fluviatile in their habits, as to make it difficult to conceive that their congeners could have thriven all the year round in regions where, during winter, the rivers were frozen over for months. Moreover, I have been unable to learn that, in any instance, bones of the hippopotamus have been found in the drift of northern Germany associated with the remains of the mammoth, tichorhine rhinoceros, musk-buffalo, reindeer, lemming, and other arctic quadrupeds before alluded to (p. 157); yet, though not proved to have ever made a part of such a fauna, the presence of the fossil hippopotamus north of the fiftieth parallel of latitude naturally tempts us to speculate on the migratory powers and instincts of some of the extinct species of the genus. They may have resembled, in this respect, the living musk-buffalo, herds of which pass for hundreds of miles over the ice to the rich pastures of Melville Island, and then return again to southern latitudes before the ice breaks up.

We are indebted to Sir Andrew Smith,* an experienced zoologist, for having given us an account of the migratory habits of the living hippopotamus of Southern Africa (*H. amphibius*, Linn.).

* Illustrations of the Zoology of South Africa : art. 'Hippopotamus.'