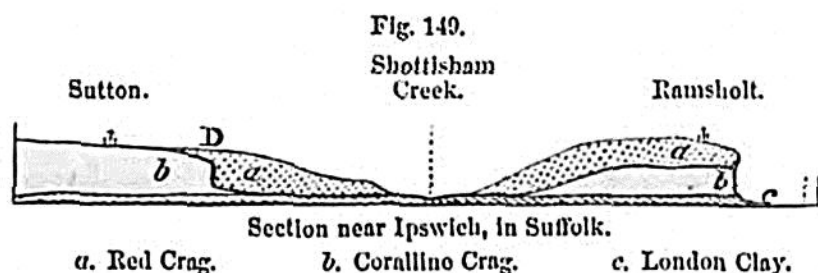


to a very peculiar type, which seems to characterize the state of the living creation in the north of Europe during the Older Pliocene era.

For a large collection of the fish, echinoderms, shells, bryozoa, and corals of the deposits in Suffolk, we are indebted to the labors of Mr. Searles Wood. Of testacea alone he has obtained 230 species from the Red, and 345 from the Coralline Crag, about 150 being common to each. The proportion of recent species in the new group is considered by Mr. Wood to be about 70\* per cent., and that in the older or Coralline about 90. When I examined these shells of Suffolk in 1835, with the assistance of Dr. Beck, Mr. George Sowerby, Mr. Searles Wood, and other eminent conchologists, I came to the opinion that the extinct species predominated very decidedly in number over the living. Recent investigations, however, have thrown much new light on the conchology of the Arctic, Scandinavian, British, and Mediterranean Seas. Many of the species formerly known only as fossils of the Crag, and supposed to have died out, have been dredged up in a living state from depths not previously explored. Other recent species, before regarded as distinct from the nearest allied Crag fossils, have been observed, when numerous individuals were procured, to be liable to much greater variation, both in size and form, than had been suspected, and thus have been identified. Consequently, the Crag fauna has been found to approach much more nearly to the recent fauna of the Northern, British, and Mediterranean Seas than had been imagined. The analogy of the whole group of testacea to the European type is very marked, whether we refer to the large development of certain genera in number of species or to their size, or to the suppression or feeble representation of others. The indication also afforded by the entire fauna of a climate not much warmer than that now prevailing in corresponding latitudes, prepares us to believe that they are not of higher antiquity than the Older Pliocene era.

The position of the Red Crag in Essex to the subjacent London clay and chalk has been already pointed out (fig. 148). Whenever the two divisions are met with in the same district, the Red Crag lies uppermost; and, in some cases, as in the section represented in fig. 149, which I had an opportunity of seeing exposed to view in 1839, it is clear that the older or Coralline mass *b* had suffered denudation, before the newer formation *a* was thrown down upon it. At D there is not only a distinct



cliff, 8 or 10 feet high, of Coralline Crag, running in a direction N. E. and S. W., against which the red crag abuts with its horizontal layers; but

\* See Monograph on the Crag Mollusca. Searles Wood, Paleont. Soc. 1848.