

Distribution of the above Marine Testacea.

Number of Species.				Species common to the	
Norwich Crag	-	-	-	81	Norwich and Red Crag (not in Cor.) 33
Red Crag	-	-	-	225	Norwich and Coralline (not in Red) 4
Coralline Crag	-	-	-	327	Red and Coralline (not in Norwich) 116
					Norwich, Red, and Coralline - 19 ^o

Proportion of Recent to Extinct Species.

	Recent.	Extinct.	Percentage of Recent.
Norwich Crag	- - - - 69	- 12	- 85
Red Crag	- - - - 130	- 95	- 57
Coralline Crag	- - - - 168	- 159	- 51

Recent Species not living now in British Seas.

	Northern Species.		Southern.
Norwich Crag	- - - - 12	-	0
Red Crag	- - - - 8	-	16
Coralline Crag	- - - - 2	-	27

In the above list I have not concluded the shells of the glacial beds of the Clyde and of several other British deposits of newer origin than the Norwich Crag, in which nearly all—perhaps all—the species are recent, although such fossils are described by Mr. Wood, or enumerated in his Appendix. The land and freshwater shells, 32 in number, have also been purposely omitted, as well as three species of London Clay shells, suspected by Mr. Wood himself to be spurious.

By far the greater number of the recent marine species included in these tables are still inhabitants of the British seas; but even these differ considerably in their relative abundance, some of the commonest of the Crag shells being now extremely scarce; as, for example, *Buccinum Dalei*, and others, rarely met with in a fossil state, being now very common, as *Murex erinaceus* and *Cardium echinatum*.

The last table throws light on a marked alteration in the climate of the three successive periods. It will be seen that in the Coralline Crag, there are 27 Southern shells, including 26 Mediterranean, and one West Indian species (*Erato Maugeræ*). Of these only 13 occur in the Red Crag, associated with 3 new Southern species, while the whole of them disappear from the Norwich beds. On the other hand, the Coralline Crag contains only 2 Arctic shells, *Admete viridula* and *Limopsis pygmæa*; whereas the Red Crag contains, as stated in the table, 8 Northern species, all of which recur in the Norwich Crag, with the addition of 4 others, also inhabitants of the Arctic regions; so that there is good evidence of a continual refrigeration of climate during the Pliocene period in Britain. The presence of these Northern shells cannot be explained away by supposing that they were inhabitants of the deep parts of the Sea; for some of them, such as *Tellina calcarea* and *Astarte borealis*, occur plentifully, and sometimes with the valves

^o These 19 species must be added to the numbers 33-4 and 116 respectively, in order to obtain the full amount of common species in each of those cases.