taken by other shells, of species altogether distinct. The very common shell *Purpura lapillus*, for instance, is found in our raised beaches, in our Clyde-beds, in our boulder-clays and mammaliferous crags, and, finally, in the Red Crag, beyond which it fails to appear. And such also is the history of the common edible mussel and common periwinkle; whereas the common edible cockle, and common edible pecten *(F. opercularis)* occur not only in all these successive beds, but in the Coral Crag also. They are older by a whole deposit than their present contemporaries the mussel and periwinkle; and these, in turn, seem of older standing than shells such as *Murex erinaceus*, that has not been traced beyond the times of the mammaliferous crag, or than shells such as *Scrobicularia piperata*, that has not been detected in more ancient deposits than raised sea-beaches of the later periods, and the elevated bottoms of old estuaries and lagoons. We thus know, that in certain periods, nearer or more remote, all our existing molluscs *began* to exist, and that they had no existence during the previous periods; which were, however, richer in animals of the same great molluscan group than the present time. Our British group of recent marine shells falls somewhat short of *four* hundred species;* whereas the group characteristic of the older Miocene deposits, largely developed in those districts of France which border on the Bay of Biscay, and more sparingly in the south of England, near Yarmouth, comprises more than *six* hundred species. Nearly an equal number of still older shells have been detected in a single deposit of the Paris basin,—the *Calcaire grossier;* and a good many more in a more ancient formation still, the London Clay. On entering the Chalk, we find a yet older group of shells, wholly unlike any of the preceding ones; and in the

* Forbes and Hanley enumerate one hundred and sixty bivalves, and two hundred and thirty-two univalves,—in all three hundred and ninety-two species,—as the only known shell-bearing molluscs of the existing British seas.