

nine marine formations, and the English Crag; and to the Newer Pliocene, the more recent marine deposits of Sicily, Ischia, and Tuscany.*

Alternating with these four great marine formations above the chalk, there intervenes a fourfold series of other strata, containing shells which show them to have been formed in fresh water, accompanied by the bones of many terrestrial and aquatic quadrupeds.

The greater number of shells, both in the fresh-water and marine formations of the tertiary series, are so nearly allied to existing genera, that we may conclude, the animals by which they were formed, to have discharged similar functions in the economy of nature, and to have been endowed with the same capacities of enjoyment as the cognate mollusks of living species. As the examination of these shells would disclose nearly the same arrangements and adaptations that prevail in living species, it will be more important to investigate the extinct

* The total number of known fossil shells in the tertiary series is 3,036. Of these 1,238 are found in the Eocene; 1,021 in the Miocene; and 777 in the Older, and Newer Pliocene divisions.

The numerical proportions of recent to extinct species may be thus expressed.—In the

Newer Pliocene period	90 to 95	} Per cent. are of <i>recent</i> species.
Older Pliocene period	35 to 50	
Miocene period	18	
Eocene period	3½	

--Lyell's Geology, 4. Ed. vol. iii. p. 308.