coveries; it is highly probable that it is the simple descriptive statement which brings into a single focus all the complex lines of hereditary influence. If Darwinian evolution be natural selection combined with heredity, then the single statement which embraces the whole field of heredity must prove almost as epochmaking to the biologist as the law of gravitation to the astronomer."

## Chapter XII.

## Palæontology.

Scope of Palæontology—Ancient Opinions—Mediæval Opinions—The Diluvial Theory—The Foundation of Palæontology—Cuvier— Lamarck—William Smith—Palæontology of Plants—The Cuvierian School—Richard Owen—Louis Agassiz—Palæontology after Darwin —Palæontology and Evolution.

It is the task of palaeontology to spell out the history of the past, so far as that can be deciphered from the fossil-bearing rocks, to trace the rise and Scope of decline of races, to disclose the sublime Palæontology. spectacle of life's progress. The palæontologist is no Dryasdust "poring over the entrails of an antediluvian frog", as a witty scholar once described him, he is rather one who makes the present intelligible in the light of the past. The palæontologists are the historians of the prehistoric, searching in the gravevards of a buried past. For all practical purposes palæontology dates from Cuvier, who may be linked to the Victorian era, if we recall that Richard Owen, after studying in Edinburgh, went to Paris and listened to some of the famous anatomist's lectures. The study is thus strictly modern, but it may be of interest to notice briefly what was said about fossils in ancient days.

In ancient days there were four theories in regard to fossils.

(1) Some held them to be *lusus naturæ*, "sports of nature", of a mineral sort; and we do well to remem-