LIVING FOSSILS

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The simplest organisms, like bacteria and many protozoa and unicellular fresh-water green algae, probably have changed but little during the ages that have intervened since they first came into existence, as their aquatic environment has remained much the same.

A study of the fossil record indicates a similar conservatism in the land plants, including the angiospermous flowering plants, whose earliest known fossil remains from the Cretaceous belong to genera still existing. Of course they must have been preceded by earlier Mesozoic types, but as yet these are unknown.

The importance of fossils, both plant and animals, as indicators in geological formations is of course recognized, but the tendency to emphasize the greater importance of animal fossils might perhaps be questioned.

The fossils of the late Mesozoic and early Tertiary are especially important, since it was in these eras that the origin and evolution of the now dominant angiosperms and mammalia were inaugurated.

Many common American trees, like the sycamore, oak, elm, willow, beech, tulip-tree (Liriodendron) and others, are found in the Cretaceous, and it is probable that the forests of the Cretaceous and early Tertiary were not very different from those of the present eastern United States. Since these trees have remained practically unchanged since the late Mesozoic to the present time, they might be termed "living fossils."

The animal life, however, has altered radically. The dinosaurs, which reached their culmination in the Jurassic and Cretaceous, have given way completely to the mammals which at the period of the dinosaur