

not only prevents its contents from drying out, but contains the nutrients necessary to nurture the embryo to an advanced stage of development. An egg encased by a shell allows the embryo to grow and develop in its own self-contained liquid environment. When growth is completed, the small but otherwise fully formed animal can break out of its shell to view its new world.

Freed from having to remain near large bodies of water, the reptiles could occupy land areas denied to the amphibians. The land areas were filled with vegetation and juicy bugs. The environment was ripe for larger animals that could occupy the vast unexploited "ecological niches" that were present. In a short period of geologic time the reptiles appeared in many diverse forms. They underwent an explosive "adaptive radiation." Some are thought to have grown into the dinosaurs.

GIANTS RULE THE EARTH

Today reptiles are represented by snakes, lizards, turtles, and crocodiles. Of these, only the crocodile is a truly ancient form. In their heyday during the Age of Dinosaurs, crocodiles may have reached fifty feet in length.

The Age of Reptiles began about 265 million years ago. Reptiles dominated the land for 200 million years until 62 million years ago when the Age of Mammals began. During the early Age of Reptiles the fossil record indicates that reptiles resembled amphibians with short legs and the elongated shape of an alligator or crocodile. Mammal-like reptiles with longer but still stubby legs appeared later in the fossil record. They were called the *therapsids* (see figure 9.8) and are

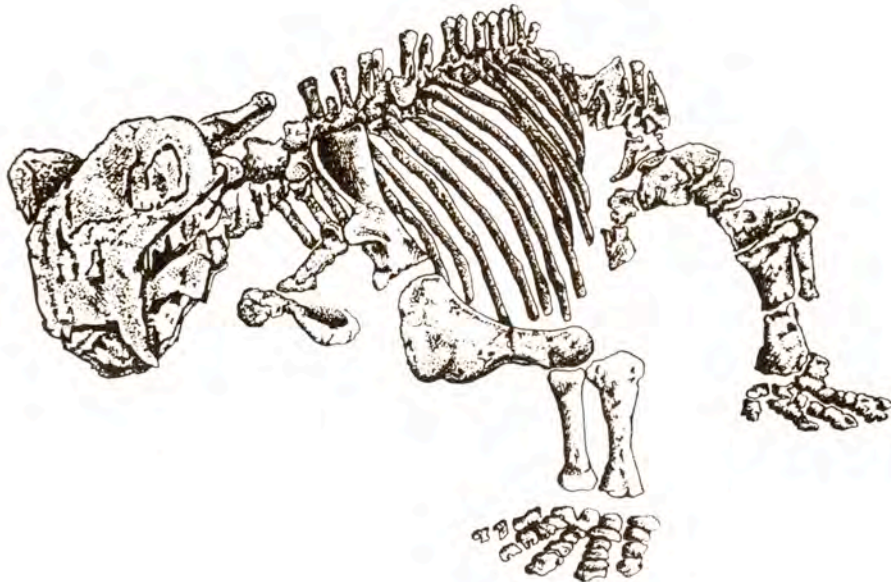


FIGURE 9.8.

The early mammal-like reptiles, called therapsids, are illustrated in the sketch above. Actual size of the skeleton is about 3 feet in length. Note that, unlike true mammals or dinosaurs, the legs extend outward from the body in a sprawling position.