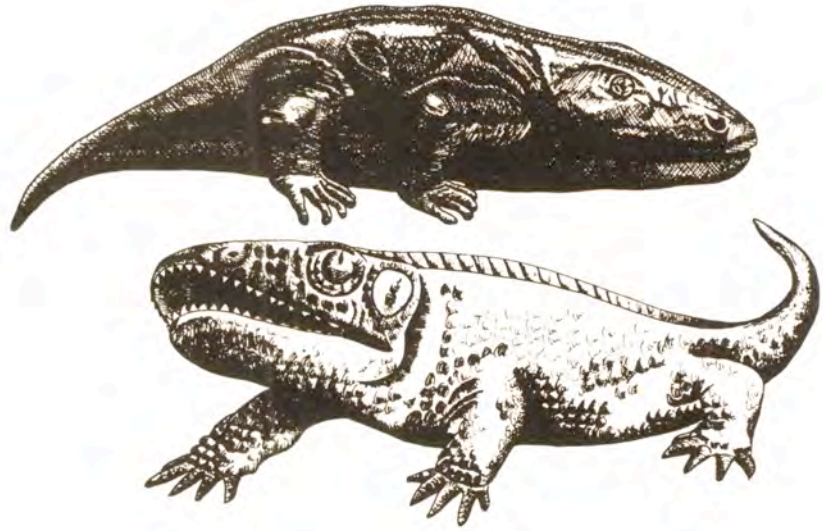

FIGURE 9.6.
Primitive amphibians of the group known as Labyrinthodonts. Sketch shows eryops, *above*, and cacops.

FIGURE 9.7.
The shelled egg is an important feature in distinguishing a reptile from an amphibian. A reptile such as a crocodile reproduces by means of a protective shelled egg, which contains the necessary nutrients to nurture the embryo to a fully developed form. The egg must have been fertilized within the body of the female reptile before it can develop the protective shell. Thus, both male and female reptiles possess reproductive organs greatly different from those of amphibians.

The Age of Amphibians, during which amphibians dominated the Earth, lasted from about 350 to 275 million years ago. This took place during the geologic periods known as Mississippian, Pennsylvanian, and early Permian. This was also the age of the great coal-forming swampy vegetation. The fossilized bones of the primitive *labyrinthodont* amphibians are often found in coal mines today.

Some of these creatures must have been terrifying (see figure 9.6). They ranged up to twelve feet long and had jaws lined with cone-shaped teeth. Some resembled fat, stub-nosed alligators. The *labyrinthodont* amphibians slowly declined to extinction about 200 million years ago. Modern amphibians such as salamanders and frogs do not appear in the fossil record until about 100 million years ago. Their relationship to the *labyrinthodonts* is obscure because they differ in major ways.

REPTILES

The next animals to appear on the land were reptiles. The major distinction between amphibians and reptiles is that whereas amphibians require both water and land for existence, reptiles can exist completely in a dry-land environment. The reptile is further distinguished by its scaly, water-retentive armor and a shelled egg. The relatively impermeable skin and the scales of a reptile serve an important function. They conserve water and body fluids within the body of the animal. They prevent it from drying out. The shelled egg