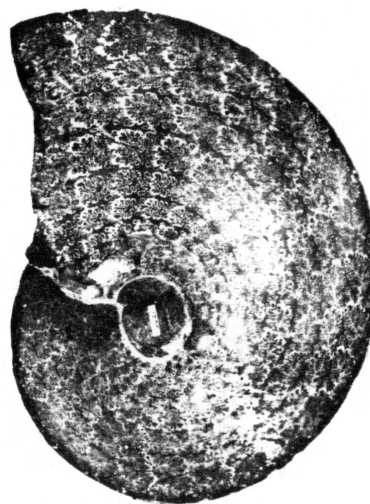


FIGURE 12.9

A typical Triassic ammonoid, *Submeekoceras*, with ceratite septa. Alternate waves of the septa have secondary crenulations on them. The specimen is from the Lower Triassic of Idaho. (Courtesy of Takeo Susuki, U.C.L.A.)

**FIGURE 12.10**

An ammonoid with complex ammonite septa. This late Cretaceous specimen of *Placentoceras* is from South Dakota and is 22 cm high. (Courtesy of Takeo Susuki, U.C.L.A.)



(Placentoceras whitfieldi
Hyatt)
in UCLA Specimen Catalog

ceratite-type cephalopods known from the Triassic. These, in turn, underwent a crisis at the close of the Triassic; all cephalopods with ceratite septa became extinct at that time. A few forms with the advanced ammonite septum had evolved during the Triassic. These persisted into the Jurassic, giving rise to another burst of ammonoid evolution. Several hundred genera are known from the Jurassic.

During the Jurassic and Cretaceous, ammonoids reached their peak of abundance, diversity, and rapidity of evolution. They are used for correlation of marine rocks of these ages on a worldwide basis. The Jurassic Period is divided into about twenty zones based on these fossils, and intervals of about 1.5 million years can be discerned with their use. In the Cretaceous, some of the ammonoids