

Fig. 379, *e*), and the Ammonites by species of *Ceratites* (*C. nodosus*, Fig. 379, *a*; *C. semipartitus*). In the Alpine limestones, however, there occurs a profusion of cephalopod forms, among which a remarkable commingling of Palæozoic and Mesozoic types is noticeable. The genus *Orthoceras*, so typical of the Palæozoic rocks, has never yet been met with in the German Triassic areas; but it appears in the Alpine Trias in species which do not differ much from those of the older formations. Associated with it are many forms of the ancient and still surviving type of the *Nautilus*. It is especially interesting amid these examples of the persistence of primeval forms to notice the advent of the earliest precursors of types which played a conspicuous part in the animal life of later periods. Thus the family of the *Belemnites*, which appeared so prominently among the denizens of the Mesozoic seas, had its earliest known forms in the open waters of Triassic time (*Aulacoceras*, *Atractites*). Though the earliest Ammonites had appeared long before, it was not until Triassic time that this great order began to assume the importance which it maintained all through the Mesozoic ages. So long as only the German type of the Trias had been studied this early development was not known. But now besides the *Ceratites*, which also ranged into the opener Triassic waters, we have become acquainted with a remarkable variety of ammonoid types (*Arcestes*, *Didymites*, *Halorites*, *Tropites*, *Rhabdoceras*, *Ptychites*, *Sageceras*, *Trachyceras*, *Pinacoceras*, *Lobites*, *Cladiscites*, *Megaphyllites*).

The fishes of the Triassic period include teeth and spines of elasmobranchs (*Hybodus*, *Acrodus*), scales, teeth, or exoskeletons of ganoids (*Gyrolepis*, *Dapedius*, *Semionotus*, *Lepidotus*, *Nephrotus*, *Saurichthys*, *Eugnathus*) and teeth of the dipnoan genus *Ceratodus*.