The specific conclusions reached may thus be summarized: There is no faunal break any where in the entire series of strata that have been referred to the Shasta and Chieo formations. Certain portions of the series are characterized by the abundance of particular species, e. g., Aucella in the lower bods and several species and genera of ammonites in the Horsetown division; but these sub-faunas are so bound together by connecting species that they cannot be regarded as really distinct, and I have therefore adopted Mr Diller's suggestion and called the whole the Shasta-Chieo fauna. The age of this fauna, or at least of the portion found in the Horsetown beds, seems to be not more recent than the Cenomanian.