Geographic and Stratigraphic Distribution of the Triassic Ichthyosauria (Reptilia; Diapsida)

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With 4 figures and 1 table in the text

Abstract: Geographic and stratigraphic data are given for all known Triassic ichthyosaurian material. Ichthyosaurs are recognized from the Smithian through the Rhaetian. Their fossils are widely distributed in the Northern Hemisphere, but are extremely rare south of the Equator. This paper reduces the number of Triassic species by considering Cymbospondylus germanicus, C. parvus, Pessosaurus suevicus, Shastasaurus sieversi, and ?Shastasaurus merriami as nomina dubia. Nonetheless, species diversity of Triassic Ichthyosauria is still as high as that of the Jurassic, while the number of genera exceeds that of the Jurassic and Cretaceous combined.


Introduction

This paper provides a current status report on the geographic and stratigraphic distribution of all presently known Triassic ichthyosaurian material. Triassic ichthyosaurs have been inadequately studied because of the poor quality and scarcity of their remains at most localities. Only two Triassic sites have produced large numbers of relatively well-preserved specimens: the Besano-Monte San Giorgio site of Italy and Switzerland, and the West Union Canyon site in the Shoshone Mountains of Nevada, U.S. A. Much of the excellent Besano-Monte San Giorgio ichthyosaur material, representing mainly a single species, Mixosaurus cornalianus, has yet to be adequately described. Additional research is also needed at the Nevada site, a nearly monospecific accumulation of specimens.