

Triassic Life of the Connecticut Valley. By RICHARD SWANN LULL.
Connecticut Geol. and Nat. Hist. Survey, Bull. 24.

The author interprets the environment, both physiographic and climatic, of Newark time in the Connecticut valley, and gives a full discussion of the animal life with descriptions and illustrations of both the fossils and the trails and footprints in these beds.

The remarkable thing about this fossil field is that actual fossils are exceedingly scarce but trails and footprints are found in marvelous abundance. In actual fossils the invertebrates are represented by only two species of *Unio* and a single aquatic insect species. The terrestrial vertebrate skeletons are all reptilian, consisting of only two species of phytosaurs, two of aëtosauers, and five of theropod dinosaurs.

However, the trails and footprints indicate a much greater and more varied fauna. Of the invertebrates, annelids, insects, spiders, scorpions, and fresh-water crustaceans of great variety were doubtless present. The footprints represent two, possibly three, classes of terrestrial vertebrates—amphibia of salamandrine form and also stegocephalians; among the reptiles, lizards, turtles, and dinosaurs, and possibly, also, rhynchocephalians, phytosaurs, aëtosauers, and theromorpha. There is no evidence that birds were present.

C. H. E.

The Cretaceous-Eocene Contact in the Atlantic and Gulf Coastal Plain. By L. W. STEPHENSON. Professional Paper, U.S. Geol. Survey, No. 90-J, 1915. "Shorter Contributions to General Geology, 1914." Pp. 155-81, pls. XI-XIX (including 2 maps), figs. 13-20 (including map).

"The Cretaceous deposits of the Atlantic and Gulf Coastal Plain are separated from the overlying Eocene and younger formations by an unconformity of regional extent"; the unconformity can be traced from New Jersey to the Rio Grande, and from there southward into Mexico.

After the Upper Cretaceous sediments were laid down, the sea withdrew to the south and east some distance beyond the present shore-line; the Lower Eocene beds were deposited on a nearly base-leveled surface.

The faunal changes that occurred between the deposition of the uppermost Cretaceous and the lowermost Eocene strata were very profound; out of 168 species representing 89 genera in the *Exogyra costata* zone, which includes the upper part of the Selma chalk (uppermost Cretaceous), 20 or more common genera and practically if not all of the