

certainly favorable to this interpretation, as the European Turonian flora is a very sparse one and presents some marked points of agreement with the flora under consideration.

In conclusion, it may be well to direct attention to the fact that the use of the minor European time divisions of the Cretaceous in this connection may well be questioned in any event, as it is clear from the conflicting evidence presented that it is impossible to assign sharply defined limits to them in the Atlantic and eastern Gulf regions.

PEEDEE FORMATION.

The criteria for the correlation of the Peedee formation have already been largely discussed in connection with the Black Creek formation. The persistent glauconitic character of the materials, although containing interstratified beds of different character, some arenaceous and some argillaceous, suggest similar conditions of deposition over wide areas. Almost identical materials are found in the Monmouth formation farther north, the Peedee marls in South Carolina, and in the upper portion of the Ripley-Selma series of the Gulf. Throughout the Atlantic and eastern Gulf areas these deposits overlies the older strata conformably. As far, therefore, as the physical criteria are concerned, the Monmouth, Peedee, and upper Ripley-Selma seem to be synchronous deposits.

The paleontological criteria are confined to animal remains, since no plants have been recognized in the deposits, and it is doubtful if beds so strictly marine are liable to afford any. The animal remains are not as numerous as in the Black Creek, only 35 invertebrate species having been recognized thus far. Of these the following 14 are confined to the Peedee formation: *Ostrea subspatulata* Forbes, *Ostrea larva* Lamarck, *Exogyra costata* Say, *Exogyra costata* var. nov., *Pecten tenuitestus* Gabb, *Lima acutilineata* (Conrad), *Paranomia scabra* (Morton), *Crenella serica* Conrad, *Pholadomya* sp. nov. (same as sp. nov. from Pataula Creek, Ga.), *Liopistha protexta* Conrad, *Panopea decisa* Conrad, *Turritella vertebroides* Morton, *Sphenodiscus lenticularis* (Owen), and *Belemnitella americana* Morton. Of the species named the following four are known to range downward into the equivalents of the Black Creek formation, either in the eastern Gulf region or in New Jersey: *Ostrea larva* Lamarck, *Paranomia scabra* (Morton), *Crenella serica* Conrad, and *Panopea decisa* Conrad. A number of other species, including *Cucullaea antrosa* Morton, *Ostrea plumosa* Morton, *Gryphaea vesicularis* Lam., *Lima reticulata* Forbes, *Anomia argentaria* (Morton), and