

CRETACEOUS SYSTEM

COMANCHE SERIES

Apparently no rocks of Comanche age were encountered in either the York well or in the Hilliard well, both of which lie in the northern part of the Peninsula. However, a thickness of more than 2000 feet of hard limestone similar to limestones in the Comanche series of Texas alternating with anhydrite and gypsum was penetrated in the Cory well near Pinecrest in the Everglades (sec. 6, T. 55 S., R. 34 E.). A core representing the interval between depths of 7944 and 7949 feet consists of hard limestone containing unidentifiable fragments of a species of *Gryphaea*, a kind of oyster. These shells give little clue as to the age, but according to L. W. Stephenson (Cole, 1941, p. 17) the rock resembles limestone of the Comanche series. If this rock is of Comanche age, it cannot be far from the top of the series as represented in this well, for a core from 7676-7684 feet contains an Upper Cretaceous (Eagle Ford age) fossil. Hard limestone, anhydrite, and gypsum, all common in the Comanche series, continue to the bottom of the well at a depth of 10,006 feet. Campbell's (1939b, p. 1714) announcement of the discovery of Lower Cretaceous deposits in this well was the first published mention of the presence of the authentic Comanche series under Florida, though Lower Cretaceous beds had been recognized by E. R. Applin in another well several years earlier (Campbell, 1939b, p. 1714). Earlier reports (Cushman, 1919) of supposed Lower Cretaceous deposits in Florida referred to much younger beds that had been misidentified.

The absence of deposits of Comanche age from the northern part of the Peninsula is not surprising, for none are known beneath the Coastal Plain of Georgia or of any other Atlantic States, nor do any lie at the surface in Alabama or Mississippi. The nearest outcrop is in southwestern Arkansas. The landward margin of the Comanche series is overlapped by younger deposits east of that region, but records of a deep well show that the Lower Cretaceous Hosston formation underlies Clarke County, Alabama (Imlay, 1943, p. 1463), with a thickness of at least 1700 feet. As this well lies about 45 miles farther north than the Florida State line and less than 30