

sima, *Ostrea gibbosa*, *Lucina minuscula*, etc. These strata are referred to the higher part of the Kimeridge Clay. They are succeeded conformably by the "zone of *Belemnites lateralis*," consisting of dark, pale, and banded clays with the fossils mentioned in the foregoing table. At the base of the zone lies a "coprolite bed," and its top is taken at a "compound nodular bed" rich in fossils (*Bel. lateralis*, *Amm. noricus*, *A. rotula*, *Avicula inæquivalvis*, *Pecten cinctus*, etc.). The total thickness of this zone is about 34 feet. It is overlain by the "zone of *Belemnites jaculum*," consisting likewise of various dark and striped clays and bands of nodules, the whole having a thickness of about 125 feet. While the underlying zone has obvious Jurassic affinities, this zone is unmistakably Lower Cretaceous. The characteristic belemnite ranges through 120 feet of the section with hardly any trace of another species. *Ammonites noricus* occurs in the lower 30 feet of the zone, and is succeeded by *A. speetonensis*. An interesting palæontological feature in this zone is the occurrence of abundant tests of *Echinospatangus cordiformis*, a highly characteristic Neocomian type. The "zone of *Belemnites semicanaliculatus* (?)" is seldom seen in complete section, owing to the slipping of the cliffs and the detritus on the foreshore. It consists of dark clays 100 feet thick or more. Above it a few feet of mottled green and yellow clays form the top of the Speeton Clay. These strata compose the zone of *Belemnites minimus*, and contain also *B. attenuatus*, *B. ultimus*, *Inoceramus concentricus*, *I. sulcatus*, etc. Some of their fossils are found in the Gault, and it has been suggested that they may represent here the Lower Gault, while the Red Chalk above may be the equivalent of the Upper Gault.¹²⁷

In Lincolnshire the marine Neocomian series is likewise developed. Rising to the surface from beneath the Chalk, the highest and lowest strata are chiefly sand and sandstone; the middle portion (Tealby series) clays and oolitic ironstones. According to Mr. Lamplugh, the Spilsby Sandstone and the Claxby Ironstone of this country, forming the base of the Neocomian series and resting on Upper Kimeridge shales, are equivalents of the zone of *Belemnites lateralis* at Speeton. The Tealby Clay, which overlies them, is regarded as representing the zone of *B. jaculum*, the Tealby Limestone the zone of *B. semicanaliculatus* (?),

¹²⁷ G. W. Lamplugh, op. cit.