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Eastern Extension of the Cretaceous in Iowa

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In connection with a casual reference to the cenological features of Central Iowa mention may be made to the recent discovery in the drift at Des Moines of a mass of rather soft ferruginous sandstone charged with fossils of unmistakable cretaceous type, the greater part being in a good state of preservation. When first discovered the mass was perhaps two feet in diameter and contained upwards of a dozen species of fossils. A few of the best preserved specimens were taken at the time; and the place revisited a few days later for the purpose of securing the entire piece, but unfortunately, workmen had removed it. The species obtained were: *Otodus appendiculatus* Agassiz, *Lamna texana* Römer, *Fosciolaria culbertsoni* Meek & Hayden, *Lumata concinna*, Meek & Hayden.

Announcements have already been made of the occurrence in the drift of Iowa beyond the limits of known Mesozoic strata in situ of Cretaceous fossils and fossiliferous sandstone. Dr. White has reported an ammonite from Waterloo, Iowa, a fragment of baculite from Iowa City,* and six specifically determinable forms from Hardin county,† and has shown that the facies of the fossils in question has a close affinity with the fauna of the Fox Hills group, or the upper-most portion of the marine Cretaceous in the continental interior. The recently discovered Des Moines specimens afford additional evidence in support of this supposition. The good preservation of the molluscan remains, though so fragile, together with the fact of the comparative softness of the ferruginous sandstone, suggests, as in the other cases mentioned, that the fragments of Cretaceous strata are not far removed from the locality of original deposition. The satisfactory determination of the eastern extension of the Cretaceous in Iowa is attended with much difficulty, chiefly on account of the great depth of the drift, covering the northwestern part of the State. But doubtless outliers will be discovered considerably to the eastward of the present ascribed limits.

*Geol. Iowa. vol. I. p. 98.
†Am. Geologist, vol. I. p. 225