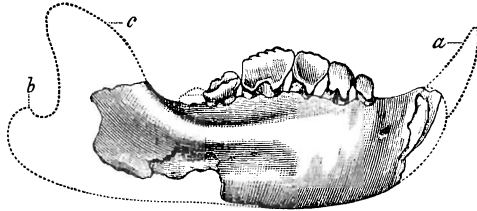


ART. XLIX.—*Notice of New Jurassic Mammals*; by Prof.  
O. C. MARSH.

ADDITIONAL remains of mammals from the Jurassic of the Rocky Mountains indicate that this class constituted an important element in the Mesozoic fauna of this country. The forms already described,\* as well as those noticed below, show moreover, such a resemblance to known types from the Purbeck of England, that some connection between the two faunæ is clearly implied, and future discoveries will be awaited with interest.

*Ctenacodon serratus*, gen. et sp. nov.

One of the most interesting specimens yet brought to light is a diminutive right lower jaw, with most of the teeth in excellent preservation. This specimen differs widely from the remains hitherto found in this country, but agrees in its main features with the genus *Plagiaulax* of Falconer.† From the type species of that genus (*P. Beckelsii*), it differs in having four lower premolars instead of three; while from all the described species, it may be distinguished by the absence of the characteristic oblique grooves on the sides of the premolar crowns. This specimen is represented in the figure given below.



Right lower jaw of *Ctenacodon serratus*, Marsh; about four times natural size.  
a. incisor; b. condyle; c. coronoid process.

This lower jaw is short and massive. Its outer surface is marked by a strong ridge, which begins below the first premolar, and is continued to the base of the coronoid process.

\* This Journal, vol. xv, p. 459, 1878; vol. xviii, pp. 60 and 215, 1879.

† Journal Geological Society of London, vol. xiii, p. 261. 1857.

The symphysis is short, and the two rami were not firmly coössified. The lower dental series is as follows:

Incisors 1-1; premolars 4-4; molars 2-2.

The incisor was large, and had a compressed base. The premolars are wedge-shaped, and all have sharp trenchant crowns. The summit of each is very thin, and the last is distinctly serrated. The first lower molar had a low crown, very similar to that of *Plagiaulax*.

The following are the principal dimensions of this specimen:

Length of portion preserved .....	11· mm
Space occupied by lower teeth .....	8·5
Space occupied by four premolars .....	4·5
Depth of jaw below first premolar .....	2·5
Depth of jaw below last premolar .....	3·5
Height of crown of last premolar .....	1·5

A second specimen, also a right lower jaw, agrees essentially with the one here described. Both are from the same locality, in the *Atlantosaurus* beds of Wyoming. These fossils, with those of the genus *Plagiaulax*, belong to a well marked family, which may appropriately be termed *Plagiaulacidae*.

*Dryolestes arcuatus*, sp. nov.

A third species of *Dryolestes* is at present represented by five specimens, two upper, and three lower jaws. This species may be distinguished from those already described by the upper and lower molar teeth, which are small, crowded together, and placed on a curve, the former with the convexity outward. The specimen which may be regarded as the type of this species is an upper jaw, with six molar teeth in place. Between these and the canine, there were at least four premolars. The teeth of the lower jaw were small, and numerous, and in one specimen appear to have been arranged on a curve opposite to that of the upper molars.

The principal measurements of the type specimen are as follows:

Space occupied by teeth in maxillary .....	15· mm
Space occupied by six posterior molars .....	7·
Height of maxillary above second premolar .....	5·
Space occupied by first three upper molars .....	3·5

The known remains of this species indicate an animal about as large as a weasel. The species now described represent a distinct family, which may be called *Dryolestidae*.

*Tinodon robustus*, sp. nov.

A species of this genus, about twice as large as the one previously described (*T. bellus*), is indicated by a lower jaw with

several teeth in good preservation. The lower molars have a strong basal ridge on the inner surface of their crowns. The ramus of the lower jaw is compressed. The mylo-hyoid groove is well marked, and is continued forward much further than in the smaller species.

The main dimensions of this specimen are as follows :

Space occupied by four lower molars .....	9· mm
Depth of jaw below first lower molar .....	4·
Depth of jaw below last lower molar .....	5·
Height of penultimate molar above inner side of jaw ..	2·

This specimen pertained to an animal about the size of the preceding species.

*Tinodon lepidus*, sp. nov.

Another species of *Tinodon*, the smallest yet found, is represented by a left lower jaw, in fair preservation. This specimen differs from the type of *T. bellus*, which it most resembles in size, in having smaller teeth, the inner margin of the jaw somewhat inflected, and the angle extending downward below the condyle, instead of being emarginate at this point. The condyle, moreover, is on a level with the base of the teeth, and not above their crowns, as in the type species.

The present specimen measures as follows :

Distance from first molar to end of condyle .....	15· mm
Space occupied by four molar teeth .....	6·
Depth of jaw below first lower molar .....	2·5
Depth of jaw below condyle .....	2·

All the specimens here described are from the same locality, in the Upper Jurassic of Wyoming, and are now preserved in the Yale Museum.

Yale College, New Haven, October 22d, 1879.