

ABNORMAL GROWTH OF THE INCISOR TEETH OF THE WOODCHUCK.

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During the latter part of August, 1923, Mr. Charles Lininger of Brookville, Indiana, killed the woodchuck whose head is described in this article. Upon observing that the teeth were abnormal he removed the head from the body and preserved it by soaking its tissues in strong arsenic and, later, drying. Mr. Lininger, however, observed that the body was that of a nearly full-grown animal, but was very much undersized and excessively thin. He made special note of the animal's inability to run, which he attributed to its nearly starved condition.

The cause of the present condition of the teeth of this animal seems to be due to the fact that the lower left incisor, instead of growing normally, became thrown out of alignment early in life, and turned toward the right, crossing the other lower incisor on its inner side.

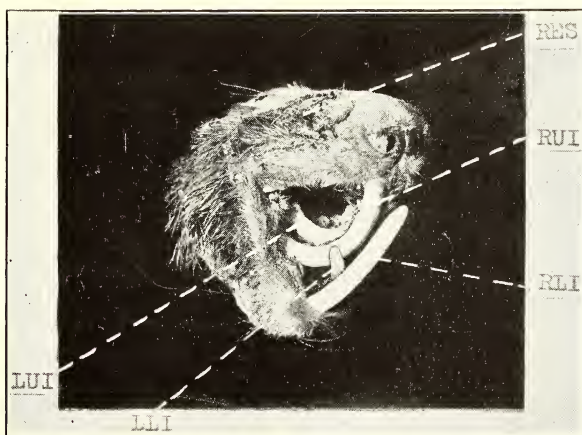


Fig. 1—Photograph right side of woodchuck's head. LLI, left lower incisor; LUI, left upper incisor; RES, right eye socket; RLI, right lower incisor; RUI, right upper incisor. (Photo by Prof. J. P. Naylor.)

This condition tended to crowd the right lower incisor forward, and rather early in the development of these teeth the upper incisors failed to meet those of the lower jaw. It is very probable that the right incisors of both jaws met and kept one another worn back for some little time but it is very doubtful if the left incisors ever met. This condition permitted the upper left incisor to grow faster than the upper right one, and this being the case the upper left incisor tended to grow in the form of a circle earlier than its mate. This condition, however, had not advanced far when the upper right incisor failed to meet the lower right incisor and then both upper incisors grew in the form of circles.

The position of these teeth made it impossible for food to enter from in front, making it necessary for the animal to take in its food on one side or the other and the passage on the left side being less obstructed was the natural one. Crowding from food on the left side probably caused the dorsal incisors to be shoved to the right so that by the time they came in contact with the roof of the mouth they had been crowded over to the region of the right molar teeth. At the time the animal was killed the upper incisors had ploughed through the right maxilla in the region of the molar teeth into the eye ball. Sight on the right side had been lost and the eye socket was a suppurating mass.

Why the lower incisors did not obtain the length of the upper ones can probably best be explained on the ground that since they protruded from the head they were probably being more or less constantly worn back in feeding.

The growth of the upper incisors as described above, not only caused destruction of the right eye but prevented the animal from closing its mouth and hence from chewing. As a matter of fact, the mouth appeared as if it had been pried open to its fullest extent.

What may have caused the left lower incisor to grow as it did is impossible to state. It may have been an accident early in life, or possible injury at birth.

The case is a fine example of the way rodents' incisor teeth with continuous growing germs (persistent pulps) continue to grow if they fail to meet. It also shows the effects of pressure on the direction of the growth of teeth.

It is remarkable that an animal in this condition could have obtained sufficient nourishment to keep alive. Certainly the teeth including the molars must have been nearly useless. It is possible that the animal by manipulating its tongue and lips was able to obtain some food.

Although the animal appeared to be mature it is probable, since rodent teeth grow rapidly, that it was born in the early spring of the same year in which it was killed.