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AN UNUSUAL EXAMPLE OF INCISOR GROWTH IN THE WESTERN FOX SQUIRREL.

DAYTON STONER.

A short time ago a partly broken skull of the Western Fox Squirrel, (*Sciurus niger rufiventer* (Geoffroy), bearing a curiously formed upper incisor was brought to me for examination by Mr. W. F. Kubichek, now of the Children's Museum, Brooklyn, New York. The animal was evidently an adult and was killed near Homestead, Iowa, November, 1917. The lower mandible as well as the posterior portion of the brain case is missing.

By referring to the accompanying figures, the points made in the following discussion may be followed more closely.

As is well known, the incisor teeth of this squirrel and, indeed of all rodents, grow from a persistent pulp; growth continues as rapidly as the tips of these teeth are worn away, and a sharp, chisel-like edge is constantly maintained. Apparently this animal had, through some accident or other, lost the exposed tip of the lower left incisor, thus leaving the upper incisor of that side unapposed; as a consequence, the latter tooth did not extend downward much farther than normally, but assumed the outline of an incomplete circle, growing backward and upward along the outer side of the superior maxillary. The apex of the tooth at the time the animal was killed, had covered over the anterior opening of the infraorbital foramen and a bony deposit had begun to take place behind the tubercle and just below and anterior to that foramen, as well as on the anterior face of the orbital plate of the superior maxillary. Both these osseous deposits were due, no doubt, to the continued and ever-increasing irritation set up by the growing incisor.

Conditions indicate that, after a time, the lower left incisor grew out again, but instead of meeting the cutting edge of the upper incisor of that side, it apposed the lower margin of the now almost completed circle into which the upper incisor had grown. The lower margin of this recurved upper incisor thus became worn into a thin edge at a point opposite the apex of the right upper incisor.

As the lower left incisor continued to grow longer, not being directly apposed by the cutting edge of a tooth in the upper jaw, it was pushed to one side so that the outer face of the *right*

upper incisor became worn and very thin from side to side at the apex. Both lower incisors were thus pushed to the right of the normal alignment and continued to grow uninterrupted. Not being directly apposed by a tooth in the upper jaw, the tips of these lower incisors penetrated the flesh covering the palatal surface of the premaxilla and had already worn a small irregular hole in the bony anterior palatal surface of the right premaxilla just anterior to the maxillo-premaxillary suture.

This state of affairs must have caused much inconvenience and even pain to the animal until its sufferings were ended by a shot from the hunter's gun.

THE STATE UNIVERSITY.

DESCRIPTION OF PLATE I.

- FIG. 1. Skull of *Sciurus niger rufiventer*, showing normal incisor growth.
FIG. 2. Skull of *Sciurus niger rufiventer*, (left side) showing abnormal incisor growth.
FIG. 3. Skull of *Sciurus niger rufiventer*, (right side) showing abnormal incisor growth.

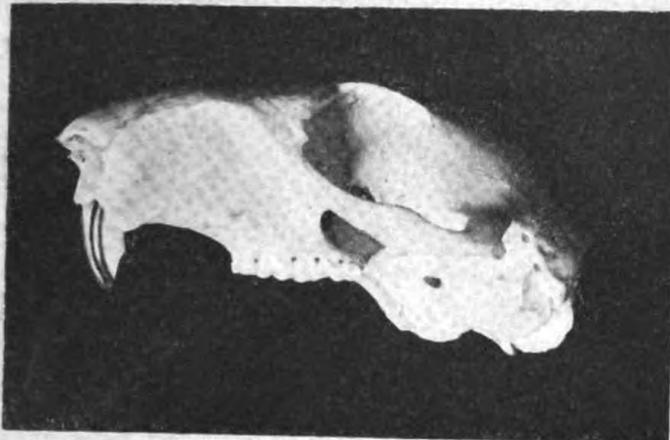


Fig. 1



Fig. 2

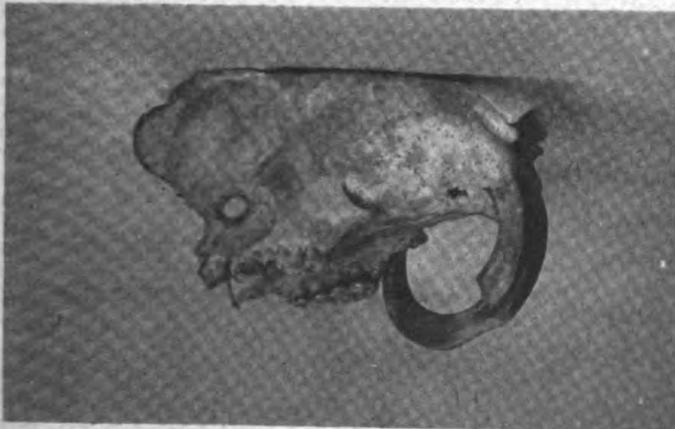


Fig. 3