

Article XXXII. — A FOSSIL PORCUPINE FROM ARIZONA.

By J. A. ALLEN.

The specimen here described is a skull in excellent preservation, lacking only the lower jaw and upper incisors, kindly presented to the Museum by Captain G. C. M. Godfrey, Medical Corps, U. S. Army, for whom the species is named. The skull was found in a volcanic fissure, about 50 feet below the surface, near the North Fork of the White River, on the White Mountain Apache Indian Reservation, Arizona. From its weight it is evidently somewhat mineralized. It is the skull of a very old animal, with well developed osseous crests and greatly worn teeth.

***Erethizon godfreyi*, sp. nov.**

Type, No. 24204, a nearly complete cranium, from a volcanic fissure, White Mountain Apache Indian Reservation, Arizona. Collected and presented by Capt. G. C. M. Godfrey, U. S. Army.

Skull short and broad, with very heavy dentition and very small audital bullæ. Total length, 104.3; occipito-nasal length, 95.5; basal length, 93.5; basilar length (Henselian), 86; palatal length, 50; post-palatal length, 38; zygomatic breadth, 69; interorbital breadth, 35; width of rostrum at front border of nasals, 24; width of rostrum at inferior base, 18.5; palatal width at posterior border of last molar (outside to outside), 25; width of occiput, 44; width at outer meatus auditorius (extreme points of anterior border of meatus), 47.6; length of nasals, 40; width of nasals at anterior border, 23.5; length of upper toothrow, 25; premolar, 9.5 x 8; m³, 6.3 x 7.3; audital bulla, 19 x 12.

This specimen further shows an interesting abnormality in the presence of a supernumerary molar on the left side, placed a little behind m³, the crown protruding from the external surface of the maxillary near its posterior border. It is about one third the size of a normal m³.

This species differs from California specimens of *E. epizanthus* in its much shorter and broader rostrum, much greater interorbital breadth, greatly reduced audital bullæ (19 x 12 against 22 x 16), and the much greater breadth of the molari-form teeth (p. 9.5 x 8 against 8 x 8; m³ 6.3 x 7.3 against 5 x 5),

and especially the reduced length of m^1 and m^2 , which are much shorter anteroposteriorly than the premolar or m^3 , instead of being longer, as in *E. epizanthus*. The existing *E. epizanthus couesi* Mearns of the same region is a much smaller form than *E. epizanthus*, with "enormous development of the audital bullæ," and is hence very different in size and other characters from the specimen here described. It is impossible from the nature of the deposit where it was found, to determine its geological age, but it may be considered as probably late Pleistocene, and as ancestral to both the eastern and western forms of the genus.

Two fossil species of *Erethizon* have heretofore been indicated, namely, *Hystrix (Hystricops) venustus* Leidy (1858), based on two detached molar teeth, from the Pliocene of Dakota; and *Erethizon cloacinus* Cope (1871), based on a last superior molar and a portion of a lower incisor, from the Port Kennedy, Pa., bone-cave. The first, perhaps doubtfully referable to *Erethizon*, obviously has no near relationship to the present species; the other, for geographical and other reasons, need not be further considered here.