polishing seen in them will be of some interest in this connection—bearing in mind, of course, that the dinosaurs exhibit such a wide range of skeletal structure that it has been more than once seriously proposed that they can scarcely be all included in the same reptilian order. Nevertheless, if the doubts recently expressed by Dr. Eastman as to any possibility of inferring stomach structure from the presence of gastroliths,[4] find some justification, it is certainly a fact of singular and widening interest that the dinosaurs swallowed and retained and polished far more highly than seen anywhere else in nature, the hardest quartz. The stronger inference by far is that their stomach structure was different from and more complicated than in existing reptiles. And naturally a stomach especially suited to grinding action analogous to that of birds first calls itself to mind.

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## DEAFNESS IN WILD ANIMALS

TO THE EDITOR OF SCIENCE: An interesting case of deafness in wild animals came to my attention this season and the conditions seem so simple as to suggest that, possibly, the loss of the sense of hearing or of smell may be no uncommon thing. I should be glad of others' notes on the subject.

In the great semi-arid regions of the west the struggle for existence is so strenuous that the special senses are very highly perfected. Especially is this true of the sense of hearing as evidenced by the enlarged external ear in many forms. The coyote (*Canis ochropus*) is especially marked with this enlarged concha and undoubtedly has, under normal conditions, a very keen sense of hearing. Popular report endows him also with almost supernatural sense of smell. The individual of the species must then labor under a decided handicap if the hearing be destroyed or the sense of smell even slightly impaired. The instance which I cite suggests that such may be often the case.

In cleaning a pair of skulls of this species which I obtained in August last, I found in the case of the male that both ears were crowded full of the bearded seeds of the common fox-tail grass (*Hordeum murinum*) which is such a pestiferous weed in the southwest. The seeds were packed closely into the tympanic chamber and the beards were very much darkened by having remained in the ear some time subjected to the exudations from the inflamed surfaces. In the same individual a fully bearded seed was found in the left nostril worked well up among the folds of the turbinated bone.

The second specimen, a female, taken at the same time, had the grass seeds in both ears but none in the nostrils.

The ear bones showed no sign of necrosis, though the seeds were in direct contact with them. Hearing was undoubtedly destroyed and, in case of the male, the sense of smell must have been impaired.

The animals were taken by strychnine poisoning with a bait of watermelon, a crop the coyote injures extensively in the sparsely settled regions. The specimens came to my hands in the meat; they were in good flesh and pelage. There was no possibility of the seeds having gotten into the ears and nose after death.

The possibility of frequent occurrence of the condition is suggested (1) by the fact that both ears of both animals had been destroyed; (2) by the great abundance and wide range of the species of grass in the case; (3) by the extreme penetrating power of the seed. Each seed tuft is very sharp pointed and is armed with three stout, serrated awns an inch long which force the seed onward with great persistence at each motion of the surface with which it is in contact.

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## INTERROGATORY LABELS FOR CERTAIN KINDS OF MUSEUMS

TO THE EDITOR OF SCIENCE: If teachers have learned that it is wise to 'exercise much self-restraint in regard to telling children what they' should 'discover for themselves,' may it not be a wise policy for workers in certain kinds of small museums, and in purely educa-

[4] SCIENCE, N. S., Vol. XXIII., p. 983, June 29, 1906.