GENUS SIGMODON.—SAY AND ORD.

DENTAL FORMULA.

$$\text{Incisive } \frac{2}{2}; \quad \text{Canine } \frac{0-0}{0-0}; \quad \text{Molar } \frac{3-3}{3-3} = 16.$$

As the present genus was instituted after a careful examination of the teeth of *Sigmodon hispidum*, by MESSRS. SAY and ORD, who first described that species, we think it due to those distinguished naturalists, to give the dental formula in their own words, more especially as this species was named on the plate in our large edition, *Arvicola hispidus*, we having had some doubts whether it was sufficiently distinct from the arvicolæ in its generic characters, to warrant us in adopting the genus SIGMODON, to which we afterwards transferred it.

“Superior Jaw.—Incisor, slightly rounded on its anterior face, truncated at tip; first molar, equal to the second, composed of four very profound, alternate folds, two on each side, extending at least to the middle of the tooth; second molar, quadrate, somewhat wider, and a little shorter than the preceding, with three profound folds extending at least to the middle, two of which are on the exterior side; posterior molar, a little narrower, but not shorter than the preceding, with three profound folds, two of which are on the exterior side, extending at least to the middle; the inner fold, opposite to the anterior exterior fold, and not extending to the middle.

“Inferior Jaw.—Incisor obliquely truncate at tip, the acute angle being on the inner side; it originates in the ascending branch of the maxillary bone, passing beneath the molars; molars, subequal in breadth, inclining slightly forwards; first molar, a little narrower than the second, with five profound alternate folds, three of which are on the inner side; second molar, subquadrate, with two alternate profound folds, the inner one anterior; third molar, about equal in length and breadth to the anterior one, but rather larger and somewhat narrower than the second, with which it corresponds in the disposition of its folds, excepting that they are less compressed.”

OBSERVATIONS.

“The enamel of the molars is thick, but on the anterior face of each fold excepting the first is obsolete. From the arrangement of the folds, as

above described, it is obvious that the configuration of the tritürating surface, (occasioned by the folds of enamel dipping deeply into the body of the tooth, in the second and third molar of the lower jaw,) accurately represents the letter S, which is reversed on the right side; that bearing considerable resemblance to the posterior tooth of the genus SPALAX, and to which also it has a slight affinity in the truncature of the inferior incisors. The configuration of the intermediate molar of the upper jaw may be compared to the form of the Greek letter Σ, whence our generic name."

"In respect to its generic affinities, it is very obvious that its system of dentition indicates a proximity to ARVICOLA; but the different arrangement of the folds, and the circumstance of the molars being divided into radicles, certainly exclude it from that genus. With respect to the radicles, it resembles the genus FIBER; but is allied to this genus in no other respect."

"We may further remark, that the teeth of our specimen are considerably worn, a condition that materially affects the depths of the folds."

Although the animal described below is the only species of SIGMODON at present admitted into this genus, there are several well known, and one undescribed, species, that we apprehend will yet be arranged under it.

SIGMODON HISPIDUM.—SAY AND ORD.

COTTON-RAT.

PLATE XXX.

S. flavo fuscescens, infra cinereum; cauda corpore brevior; auribus amplis rotundatisque; Tamiae Lysteri magnitudine.

CHARACTERS.

Size of the chipping squirrel, (T. Lysteri;) tail, shorter than the body; ears, broad and rounded; above, dark yellowish-brown; cinereous beneath.

SYNONYMES.

MARSH-RAT, Lawson's Carolina, 1709, p. 125.

THE WOOD-RAT, Bartram's Travels in East Florida, 1791, p. 124.

Audubon, John James and Bachman, John. 1851. "Genus Sigmodon." *The quadrupeds of North America* 1, 227–228. <https://doi.org/10.5962/p.322449>.

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