

ART. XLV. *On Aplodontia, a new genus of the order Rodentia, constituted for the reception of the Sewellel, a burrowing animal which inhabits the North Western Coast of America. By JOHN RICHARDSON, M.D., F.R.S., F.L.S., &c.,*

IN the narrative of the memorable journey of Captains Lewis and Clark across the American continent to the mouth of the Columbia, the following passage occurs, “Sewellel is a small animal found in the timbered country on this coast. It is more abundant in the neighbourhood of the great falls and rapids of the Columbia, than on the coast which we inhabit [mouth of the Columbia]. The natives make great use of the skins of this animal in forming their robes, which they dress with the fur on, and attach them together with sinews of the elk or deer; the skin, when dressed, is from fourteen to eighteen inches long, and from seven to nine in width; the tail is always separated from the skin by the natives when making their robes. This animal mounts a tree and burrows in the ground precisely like a squirrel; the ears are short, thin and pointed, and covered with a fine short hair, of a uniform reddish brown; the bottom or base of the long hairs, which exceed the fur but little in length, as well as the fur itself, are of a dark colour next to the skin for two thirds of the length of this animal: the fur and hair are very fine, short, thickly set, and silky; the ends of the fur and tips of the hair, are of a reddish brown, and that colour predominates in the usual appearance of the animal. Captain Lewis offered considerable rewards to the Indians, but was never able to procure one of these animals alive.”*

It does not appear that the enterprising travellers brought any of the skins of the Sewellel to the United States, and the above notice is the only real information respecting the animal that has reached the public up to this period. M. Rafinesque-Smaltz referred the Sewellel provisionally to his genus *Anisonyx*† under the name of *Anisonyx? rufa*; and

* LEWIS and CLARK, *Journey*, &c. III. p. 40.

† DESMAREST, *Mammalogie*, p. 330 in notis.

Dr. Harlan has placed it in the genus *Arctomys*. It differs, however, essentially from an *Arctomys*, not only in general habit and appearance, but also in dentition, as it does, indeed, from all the *Rodentia* with which I am acquainted. M. Rafinesque has given few details of the genus *Anisonyx*, and says of the teeth, merely, that they resemble those of the Squirrels. This character does not apply at all to the Sewellel, which was known to Rafinesque only from Lewis and Clark's description. I have, therefore, been induced to constitute a new genus for the reception of this animal, and as the specific name of *rufa* is quite inapplicable, I have given it one derived from the general resemblance it bears to animals of the hare kind.

Lewis and Clark deriving their information solely from the natives, and, perhaps, through an imperfect translation, appear to have confounded the Sewellels with a species of *Myoxus*, a very distinct animal, and are mistaken in ascribing to it the habit of climbing trees; neither is it found in the neighbourhood of the Grand Rapids of the Columbia, as they were told. It is a very local animal, confining itself to particular spots, generally on the banks of rivulets flowing through small prairie lands. In these places it forms large villages, whose areas are completely hollow with their burrows. It is common on the Cowlidiske, one of the northern branches of the Columbia, also in the district between Mount St. Helens and Puget Sound, and on the sea coast between the Columbia and Whitby's Harbour.

Its food consists of vegetable substances, such as grass, the bulbs of the *Scilla esculenta*, and the bark of fallen trees, &c. The female has two litters of young in a season, and brings forth from three to five at a time. Several tribes of Indians, particularly those inhabiting the coast from the mouth of the Columbia northwards, form dresses of the skins of the Sewellel.

APLODONTIA.*

CHAR. *Dental formula*, incisors $\frac{2}{2}$, canines $\frac{0}{0}:\frac{0}{0}$, grinders $\frac{4}{4}:\frac{4}{4}$; 22.

Incisors, very strong, flatly convex anteriorly without grooves, narrower behind. *Grinders* simple, remarkably even on the crowns. The first in the upper jaw, small, cylindrical, and pointed, is placed within

* Th. *απλοος* simplex, *οδους* dens.

the anterior corner of the second one, and exists in the adult animal. The rest of the grinders are perfectly simple in their structure, without roots, have slightly concave crowns, and are simply cased in enamel, without any transverse ridges or eminences. There is an acute vertical ridge on the exterior side of the upper grinders, and inner side of the lower ones, with a wide furrow or groove on each side of it, and the opposite side of the tooth is rounded or semicircular. The second grinder in the upper jaw, and the first in the lower, are a little larger than the others, and the former has a projection of enamel at its anterior corner, producing a second, though smaller, perpendicular ridge, within which the small first grinder is situated. There is a slight furrow on the exterior sides of the lower grinders, most conspicuous in the first one.

Palate narrow; the right and left rows of grinders being near each other, and disposed in parallel straight lines.

Head flat and broad; *nose* a little arched, thick and obtuse.

Lower jaw thick and strong, much developed posteriorly, and having condyles more transverse than longitudinal.

Cheek-pouches none.

Eyes very small. *Ears* short and rounded, approaching in form to the human ear.

Body thick and short.

Limbs short and thick; *feet* moderately strong, with naked soles. Five toes on all the feet, rather short, but well separated. The thumb of the fore-feet is considerably shorter than the other toes. *Claws*, particularly the fore ones, very long, strong, much compressed, and but little curved.

Tail very short, concealed by the fur of the hips.

Mammæ six, the anterior pair between the fore-legs.

HABIT. The Sewellel is a plantigrade, burrowing animal, living in villages, and feeding on vegetable substances.

APLODONTIA LEPORINA. *The Sewellel.*

Sewellel. LEWIS and CLARK'S *Journey*, &c. iii, p. 39, (Engl. ed.)

Anisonyx? rufa. RAFINESQUE, *Desm., Mamm.* p. 330, in notis.

Arctomys rufa. HARLAN, *Americ. Fauna*, p. 308. GRIFFITH'S *Animal Kingd.* v. p. 245, spec. 636.

Marmot, No. 17. HUDSON'S BAY MUSEUM.

DESCRIPTION. The Sewellel stands very low on its legs, and has a short, thick body, like that of a hare, with a rather large head. The nose is thick and obtuse, the nostrils small and round, and the whiskers very strong, and longer than the head. The eye is very small, the opening in the skin not exceeding two lines. The ear strongly resembles the human ear in its form. The flap or auricle is rounded, and is about half an inch high above, and posterior to the auditory opening. It is prolonged beneath the opening in form of a narrow thick margin, and its anterior part forms a distinct *helix*. It is clothed with very short, soft fur, intermixed with a few larger hairs.

The stump of the tail is scarcely half an inch long, and has a slender cylindrical form. It is covered with fur of the same colour and length with that on the neighbouring parts, and is not visible when the animal is alive.

Fore-feet. The thumb is of sufficient length to be of use in grasping, and its upper *phalanx* is closely covered by a smooth rounded nail. The second fore-toe is the longest, the third is a little shorter, the first is about two lines shorter than the second, and the fourth or last is scarcely shorter than the first. The claws are large, and very much compressed, so that their edges are in contact beneath, for nearly their whole length. The *hind-feet* are a little more slender than the fore ones, and their claws are about one-half smaller, rather more arched, and less compressed.

The fur resembles that of a musk-rat, or a rabbit when out of season, and consists of a close short down, four or five lines long, mixed with longer scattered hairs. The general *colour* of the back is intermediate between umber and chestnut browns, without any tendency towards a rufous hue, and it is rendered darker by most of the long scattered hairs on that part being black. The belly is greyish or clove brown, and many of the long hairs there, and on the sides, are tipped with white. The nose is clothed with short hairs, nearly of the colour of the back; the lips are whitish, and there is a pretty large spot of pure white on the throat. In the female the *mammæ* are indicated by brown circular marks on the fur. The fur has no lustre on its surface, and little beauty.

That on the back has a shining greyish black colour from the roots to the brownish tips.

Dimensions of a full-grown male specimen.

Length of head and body	14 inches.
tail (<i>vertebræ</i>)	$\frac{1}{2}$
fore-claws	$\frac{1}{2}$

The female is nearly of the same size.

I had originally drawn up the characters of this interesting little animal, from a specimen contained in the collection of the Hudson's Bay Company. I have since been indebted to the kindness of Joseph Sabine, Esq., Secretary to the Horticultural Society, for the opportunity of more accurately examining the species, and completing the generic characters, from specimens in the collection of that Society, brought home by Mr. David Douglas. To this gentleman also I have to acknowledge my obligations for the whole of the information which has been given of the habits and manners of the animal. And here I cannot avoid adding my tribute of praise to Mr. Douglas, for the zeal and intelligence with which he has pursued his scientific researches in North America, and the unusual liberality with which he has communicated his knowledge to the friends of science.

I have to add that on examining the specimens brought home by Mr. Douglas, I find one smaller than the others, and with a less brown and more hoary fur, which exhibits a considerable difference in the form of its skull, particularly in the distance between the orbits. It is probable, therefore, that a second species may exist nearly resembling the one described above; but the specimen is unfortunately too much injured to enable me to draw up its characters.

