

THE JERBOAS.

JERBOA is a generic name employed to denote those animals which are remarkable for the disproportion between the hind and fore legs, the latter not exceeding the length of a mole's paws, and the former resembling the legs of a bird. In this genus, we are acquainted with four species, or distinct varieties: 1. The Tarsier, or woolly Jerboa, formerly mentioned, which is certainly a particular species, because it has five toes on each foot, like those of a monkey. 2. The Jerboa, properly so called*, which has

* The Egyptian Jerboa, with thin, erect, and broad ears, full and dark eyes, and long whiskers. The fore legs are an inch long, with five toes on each, the inner, or thumb, being scarce apparent; but that, as well as the rest, furnished with a sharp claw. The hind legs are two inches and a quarter long, thinly covered with hair, and exactly resembling those of a bird; three toes on each foot, covered above and below with hair: The middle toe is the longest, and on each is a pretty long sharp claw. The length from nose to tail, is seven inches and one quarter; the tail ten inches, terminated with a thick black tuft of hair; the tip white. The rest of the tail is covered with very short coarse hair. The upper part of the body is thin, or compressed *side-wise*. The part about the rump and loins is large. The head, back, sides, and thighs, are covered with long hair, silvery-coloured at the bottom, and pale tawny at the ends. The breast and belly are whitish, and the hair long and soft. *Pennant's Synops. of Quad. p. 295.*

Mac. Zool.; Theophr. epist. p. 295. Elliot. Hist. Anim. lib. x. c. 26.

Mus

has four toes on the fore feet, and three on the hind. 3. The alagtaga*, whose legs are constructed like those of the jerboa, but which has

Mus bipes Plinii; Lib. xv. c. 65.

Jerboa or Terboa, the Arabian name of this animal; Shaw's Travels, p. 248. Texeira's Travels, p. 21.

Gerboa; Edwards's Glanings, p. 219. Plaidford's Journal, p. 59.

Mus jaculus, cauda elongata floccosa, palmis subpentadactylis, femoribus longissimis, brachiis brevissimis; Linn. Syst. Nat. p. 86. Hæschel's, p. 198.

Gerboise; Voyage de Paul Lucas, tom. ii. p. 73.

* Siberian jerboa, with very long transparent narrow ears, long whiskers, and five toes on the fore feet, three on the hind feet, pointing forward, and a fourth behind, about an inch above the heel. The colour of the upper part of the body is tawny, and of the lower whitish. In form of body, legs, and tail, it agrees with the Egyptian jerboa; Pennant's Synopsis of Zoology, p. 296.

Alagtaga is the Tartarian name of this animal, which, according to Meisnerichmid, signifies an animal which cannot walk. The word alagtaga, however, appears to be nearly the same with letaga, which is applied to the flying squirrel. Hence, I am inclined to believe, that alagtaga, as well as letaga, are generic rather than specific names, and that they denote a flying animal, especially as Strahlenberg, quoted by Gmelin, calls this animal the flying hare.

Cuniculus seu Lepus Indicus, asiaticus; Aldrov. de Quad. digit. fig. p. 395.—Note, 1. Linnaeus and Edwards have improperly referred this figure to the jerboa, though, by the spur or fourth toe on the hind feet, which is very conspicuous, it belongs to the species of alagtaga. Note, 2. Aldrovandus was wrong in denominating this animal asiatic, which is an American word, and probably the same with agouti.

Cuniculus pumilio fulvens, cauda longissima; Gmelin. Nov. Com. Acad. Petrop. tom. v. tab. 11. fig. 1.

Cuniculus pumilio fulvens, cauda anomala longissima; Brisson. Quad. p. 103.

Flying hare; Strahlenberg; Hist. Russ. p. 370.

five

five toes on the fore feet and three on the hind, with a spur, that may pass for a thumb or fourth toe, much shorter than the others. 4. The Damman Israel*, or lamb of Israel, which may be the same animal called *Mus longipes* by Linnaeus†, and which has four toes on the fore feet, and five on those behind.

The head of the jerboa has a great resemblance to that of the rabbit; but its eyes are larger, and its ears shorter, higher, and broader, in proportion to its size. The nose is flesh-coloured and naked; and the muzzle is thick and short. The opening of the mouth is very small; the upper jaw is very broad, and the under narrow and short. The teeth are like those of the rabbit; and the whiskers round the mouth are composed of long black and white hairs. The fore feet are extremely short, and never touch the ground, being used only as hands to convey victuals to the mouth. These hands have four fingers, armed with claws, and the rudiments of a fifth without any claw. The hind feet have

* Damman Israel, lamb of the children of Israel; Shaw's Travels.

Animal quoddam pumilo cuniculo non dissimile, sed cuniculi majus quod agnoscit filiorum Israel nuncupant; Presp. Alpin. Hist. Egypt. lib. iv. cap. 9. p. 232.

† *Mus longipes*, cauda elongata vestita, palmis tetradactylis, plantis pentadactylis, femoribus longissimis; Linn. Syst. Nat. p. 84. The word *senarius* is here improperly applied; for the metatarsi, or first bones of the foot alone, are extremely long in this animal.

only

only three toes, of which the middle one is longest, and all three are armed with claws. The tail is three times longer than the body; it is covered with small stiff hairs, of the same colour with those on the back, and the extremity of it is garnished with longer, softer, and more bushy hair. The legs are naked and flesh-coloured, as well as the nose and ears. The top of the head and back are covered with reddish hair, and the flanks, the under part of the head, the throat, the belly, and the inside of the thighs, are white. Below the reins and near the tail there is a large, black, transverse band, in the form of a crescent*.

The alagtaga is smaller than a rabbit. His ears are long, broad, naked, thin, transparent, and spread over with very conspicuous blood-vessels. The upper jaw is much larger than the under, but blunt and pretty broad at the extremity. It has large whiskers round the mouth. The teeth are like those of a rat. The eyes are large; and the iris and pupils are brown. The body is narrow before, broad and almost round behind. The tail is very long, not so thick as a small finger, and two thirds of it are covered with short stiff hair; on the last third the hairs are longer, more bushy, softer, and become longer toward

* The following are the dimensions of this animal, as measured by Hasselquist: Magnitudo corporis ut in mure domestico majore. Mensuratio capit. poll. 1 corp. poll. 2 $\frac{1}{2}$ caud. spith. 1 $\frac{1}{2}$ poll. ped. spith. $\frac{3}{4}$ anter. infra pollicem. Myd. longiss. poll. 3.

the extremity, where they form a kind of tuft, which is black at the beginning, and white at the end. The fore feet are very short, and have five toes; those behind are very long, and have only four toes, three of which are placed before, and the fourth, which is a thumb, stands at a distance from the others. All these toes are armed with claws, which are shorter in the fore than in the hind feet. The hair of this animal is soft, pretty long, yellow on the back, and white on the belly*.

From comparing these two descriptions, the first of which is taken from Edwards and Hasselquist, and the second from Gmelin, it appears that the jerboa and alagtaga resemble each other in a striking manner. The jerboa is only smaller than the alagtaga, and has but four toes on the fore feet, and three on the hind, without any spur; while the alagtaga has five toes on the fore feet, and three and a spur on the hind feet. But I suspect that this difference is not constant; for Dr. Shaw, who has given a figure and description of a Barbary jerboa, represents it with

* The following are the dimensions of this animal, as measured by Gmelin: Longitudo ab extremo retro ad initium caudae poll. 6 $\frac{1}{2}$; ad oculos poll. 1. Auricularum poll. 1 $\frac{1}{2}$; caudae poll. 8 $\frac{1}{2}$; pedum anteriorum ab humero ad extremos usque digitos poll. 1 $\frac{1}{2}$; pedum posteriorum a furcaginibus ad initium usque calcanei poll. 3 $\frac{1}{2}$; a calcaneo ad extorem digitum posterioris poll. 1; ab exorte digiti posterioris ad extremos ungues poll. 2. Latitudo corporis anterioris poll. 1 $\frac{1}{2}$; posterioris poll. 3. Auricularum poll. $\frac{1}{2}$.

a spur or fourth toe on the hind feet; and Mr. Edwards remarks, that he carefully examined two jerboas which he saw in England, and could discover no spur. Hence this character, which might serve as a specific distinction between the jerboa and alagtaga, by not being constant, answers no purpose, but marks rather the identity than the diversity of the species. Neither does the difference in size prove them to be distinct species: Edwards and Hasselquist may have described only young jerboas, and Gmelin an old alagtaga.

Two circumstances, however, render this matter still doubtful; the proportion of the tail, which is much larger in the jerboa than in the alagtaga, and the difference of the climates which they inhabit. The jerboa is common in Circassia*, Egypt†, Barbary, and Arabia; and the alagtaga in Tartary, along the Wolga, and as far as Siberia. It is seldom that the same animal inhabits climates so different; and, when it does

* In Circassia, Persia, Arabia, and the environs of Babylon, there is a kind of field-mouse, called *jerboach* in the Arabic language, which is nearly of the size and colour of the squirrel. When it leaps, it darts five or six feet above the ground. It sometimes quits the fields, and takes up its abode in the houses; *Voyage d'Olivieri*, p. 177.

† In Egypt, I saw two small animals, that ran very quickly on their hind feet, which were so long that the creatures seemed to be mounted on stilts. These animals burrow like rabbits. I carried off seven of them; two of which I brought to France, where they lived in the royal menagerie two years; *Voyage de Paul Lucas*, tom. ii. p. 74.

happen, the species undergoes great changes: This we presume to be the case with the jerboa, of which, notwithstanding these differences, the alagtaga seems to be only a variety.

These animals generally conceal their hands or fore feet among the hair; so that, at first sight, they seem to have only two feet. In transporting themselves from place to place, they do not walk, or advance one foot after another, but leap nimbly to the distance of three or four feet. When reposing themselves, they sit on their knees, and sleep only during the day. They eat grain and herbage, like the hare. Their dispositions are mild, and yet they can never be tamed beyond a certain point. They dig holes in the earth like the rabbits, and in a much shorter time. About the end of summer, they lay up herbage in their magazines, where, in cold countries, they pass the winter.

As we have had no opportunity of dissecting this animal, we shall subjoin the remarks of M. Gmelin upon its internal structure*.

With

* Oesophagus, uti in lepore et caniculo, medio ventriculo insertus; intestinum cecum breve admodum sed amplum est, in processum vermiformem, duos pollices longum abiens. Choledochus mox infra pylorum intestinum fuit. Vesica urinaria citrina aqua plena; utri nulla plane distinctio; vagina enim canalibus in duas sine ulla artificio in pubem usque protensa in ano mox cornua dividitur, quæ ubi ovaris appropinquant multas inflexiones faciunt, et in ovaris terminantur. Penem masculum habet satis magnum, cui

With regard to the daman, or lamb of the children of Israel, which seems to be a kind of jerboa, because its fore legs are remarkably shorter than the hind, having never seen this animal, we cannot do better than copy the remarks of Dr. Shaw, who had an opportunity of comparing it with the jerboa, and speaks of them as two distinct species. 'The daman,' says this author, 'is likewise an animal of Mount Libanus, though common in other places of this country. It is a harmless creature, of the same size and quality with the rabbit; and with the like incurvating posture and disposition of the fore teeth. But it is of a browner colour, with smaller eyes, and a head more pointed, like the marmots. The fore feet likewise are short, and the hinder are nearly as long in proportion as those of the jerboa. Though this animal is known to burrow sometimes in the ground; yet, as its usual residence and refuge are in the holes and cliffs of the rocks, we have so far a more presumptive proof, that this creature may rather be the saphan of the Scriptures, than the jerboa. I could not learn why it was called da-

eci circa vesicæ urinarie collum vesiculæ feminales unciam cum dimidio longæ, graciles, et extremis artibus intortæ adjacent. Foramen aut sinus quosdam inter anam et penem, aut inter anam et vulvæ nullo modo potui discernere, licet quavis in indagacione ita cautels adhibuerim. — Cuniculi Americani, porcelli pilis et voce Mægræ. — Pubes intermarum partium ab hoc animali non multum abhædunt; Gmelin, Nov. Gen. Petrop. tom. v. art. 7.

man

man Israel, *i. e.* Israel's lamb, as these words are interpreted *.' Prosper Alpinus, who mentioned this animal before Dr. Shaw, says, that its flesh makes excellent eating, and that it is larger than the European rabbit. But this last fact seems to be suspicious; for Dr. Shaw has omitted this passage of Prosper Alpinus, though he transcribes all the other remarks of that author.

* Shaw's Travels, p. 248.