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INCLUDING
ZOOLOGY, BOTANY, AND GEOLOGY.

(BEING A CONTINUATION OF THE 'ANNALS' COMBINED WITH LOUDON AND CHARLESWORTH'S 'MAGAZINE OF NATURAL HISTORY.')

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230 species would be enumerated in it. This number has increased to 242, of which 18 are new and 3 have not hitherto been recorded as British; and the wealth of the district is, no doubt, far from being exhausted. Indeed, I learn from my friend Prof. Allman that he has lately discovered several new *Tubulariadae* in the neighbourhood of Torquay. I shall hope to include these and any subsequent additions in a future Supplement.

The following table shows the number of species under each of the leading divisions:—

Hydrozoa	{	Hydroida	77	
		Lucernariadae	2	
			—	79
Actinozoa	{	Zoantharia	37	
		Alcyonaria	4	
			—	41
Polyzoa	{	Cheilostomata	87	
		Cyclostomata	14	
		Ctenostomata	17	
		Pedicellinea	3	
		Lophopea	1	
			—	122
			<hr style="width: 50px; margin: 0 auto;"/>	242

XLI.—On the Unicorn of the Ancients.
By the Rev. W. HAUGHTON, M.A., F.L.S.

Few subjects of zoological interest have from time to time given rise to more discussion than that which relates to the question as to what animal is denoted by the "Unicorn" of the ancients*.

* See for instance the following papers, which the reader interested in this question may consult, but which I have had no opportunity of seeing.

BACCI, AND. *Discorso dell' Alicorno*. Fiorenza, 1573.
 BARTHOLINUS, THOMAS. *De Unicornu observationes novæ*. Patav. 1645.
 BARTHOLINUS, CASPAR. *De Unicornu ejusque affinibus, &c.* Hafn. 1628.
 BEREUS, F. C. *Diss. de Monocrote*. Resp. J. H. Homilius. Lips. 1667.
 CATELAN, LAMENT. *Histoire de la Licorne*. Monpell. 1624.
 ——— *Von der Natur, Tugenden, Eigenschaften und Gebrauch des Einhorns; in französ. Sprach beschrieben; von G. Fabro übersetzt*. Frankf. a. M., 1625.
 DEUSING, ANT. *Diss. de Unicornu*. Groning. 1659.
Documents Nouveaux sur l'existence de la Licorne, in Féruss. Bull. Sc. Nat. iv. 1825, p. 417.
 FRENZEL, S. F. *Disquis. Naturalis de Unicornu*. Resp. Christ. Vater. Witteberg, 1675.
 LATERRADE, J. F. *Notice en réfutation de la non-existence de la Licorne*,

Various reports have been given by travellers, that an animal still exists in some parts of the world which bears a marked resemblance to the one-horned animal under consideration; and although scientific men have no hesitation in regarding the Unicorn as a fabulous animal, yet from time to time travellers write home that they are on the track of the veritable creature itself; and I only read the other day that Dr. Baikie, the African traveller, now in charge of the Niger Expedition, is in pursuit of the animal, and thinks that he may be able to discover it in some of the unexplored wastes of Central Africa! He learned from two informants that they had seen the bones of such an animal, and states that they accurately describe the long, straight, black horn, and carefully distinguish between the one-horned Rhinoceros and the supposed Unicorn! Dr. Baikie gives a list of native names by which this unknown animal is called in various African dialects, and is quite disposed to believe that its non-existence is by no means proved*.

What are the chances of our seeing a specimen of the Unicorn brought home to this country, and forming the grand object of attraction to all the world? Why should not a one-horned animal exist such as we see depicted on the royal arms? Father Lobo, in his 'History of Abyssinia,' actually describes the Unicorn as a beautiful *horse*; and Barrow, in his 'Travels in Southern Africa,' gives the figure of a head of a Unicorn which he saw drawn on the sides of a cavern, and appears to entertain no doubt that such an animal exists. No traveller, however, has as yet succeeded in obtaining a specimen; and I venture to affirm very positively that the like result will attend Dr. Baikie's search. But let us take a brief survey of what the ancients have recorded of the Unicorn, or, rather, Unicorns; for there are at least three, if not more, one-horned animals mentioned by them.

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- in Bull. Soc. Linn. de Bordeaux, i. 1826; Féruss. Bull. Sc. Nat. x. 1827, p. 396.
- LATERRADE, J. F. *Sur la Licorne*, in Actes de la Soc. Linn. Bordeaux, v. 1832, p. 115.
- *On the Unicorn*. Transl. by Jos. Porter, in Silliman's American Journ. xxi. 1832, p. 123.
- REUSSER, G. *Sur l'existence de la Licorne*, in Millin, Mag. Encycl. iii. 5, 1797, p. 311.
- REITZ, K. K. *Neueste Nachricht vom Einhorn*, in Lichtenberg-Voigt's Mag. Bd. x. St. 3, 1797.
- SACHS, P. LDW. *Monocerologia, seu de genuinis Unicornibus Diss.* Raceb. 1676.
- STOLBERGK, J. CHR. *Exercitatio de Unicornu.* Resp. Chr. Sagittarius. Lips. 1652.
- VERSTER VAN WULVERHORST, A. H. *Over den Eenhoorn*, in Bijdragen tot de Dierkunde, 1860.

* See the 'Athenæum' for August 16, 1862.

And first of all, there is the Unicorn of the Bible. Pages upon pages have been written on this subject. Some have said it must have been the Antelope (*Oryx leucoryx*) of North Africa, Syria, &c., that the horns, seen in profile, appear as one, and hence the mistake of regarding it as a one-horned animal; others have no hesitation in referring the Unicorn to the one-horned Rhinoceros (*R. unicornis*) of Asia; this is the opinion generally entertained at this day. Now, all attempts to discover a one-horned animal that shall represent the Unicorn of our English Bible are beyond the mark entirely, and for this simple reason: the so-called Unicorn is no Unicorn at all; the Hebrew word (*R'ém*) denotes a two-horned animal, beyond a shadow of a doubt. The "Unicorn" of our English Bible owes its origin to the Septuagint and Vulgate versions*. In the 17th verse of Deut. xxxiii., which contains a portion of Joseph's blessing, it is said, "His horns are like the horns of a *R'ém*†." Our translators, seeing the contradiction involved in the expression "horns of the Unicorn," have rendered the Hebrew singular noun as if it were a plural form in the text, though they give the correct translation in the margin. The two horns of the *R'ém* are "the ten thousands of Ephraim and the thousands of Manasseh," and represent the two tribes which sprang from one (viz. Joseph), just as two horns spring from one head. The Unicorn of the Bible therefore may be dismissed at once, as being a very unhappy translation of the Hebrew two-horned *R'ém*, the animal denoted being, there cannot be much doubt, some species of "wild ox," as appears pretty evident from a comparison of the different passages where the word occurs in Holy Scripture. The *R'ém* was two-horned; it is almost always mentioned with bovine animals; it is said to push with its horns; it must have been frequently seen by the ancient Hebrews roaming on the hills of Palestine or in the woods of the Jordan valley, as is evident from the numerous allusions to it. It is true there is no wild ox at present known to exist in Palestine; but this is no reason why, in early times, some mighty species, allied perhaps to the *Urus* which Cæsar saw in the Hercynian Forest, should not have existed in that country. Lions were certainly not uncommon in Palestine and Syria in Biblical times, as is clear from the numerous allusions to them in Holy Writ; and it is interesting to note, as an additional proof, that the late Dr. Roth discovered bones of the Lion in gravel near the Jordan: it is therefore quite probable that

* *Μονόκερως* in all the passages but one, where the Septuagint has *ἀδρῶι*. The Vulgate has *unicornis*, and sometimes *rhinoceros*.

† That the *R'ém* possessed two horns was shown in 1737 by Schultens, who, in his Commentary on the Book of Job (xxxix.), draws especial attention to the above passage in Deuteronomy.

future investigations in Palestine may result in the discovery of the bones of *Bos primigenius* or *Bison priscus* or some other once formidable ox. All readers will remember the beautiful description of the *R'ém* in the Book of Job; now let us compare with it the account Cæsar gives of the fierce *Urus*, which in his time frequented the great Hercynian Forest:—"These Uri are scarcely less than elephants in size, but in their nature, colour, and form are bulls. Great is their strength, and great their speed, nor do they spare man or beast when once they have caught sight of him. The hunters are most careful to kill those which they take in pitfalls, while the young men exercise themselves by this sort of hunting, and grow hardened by the toil; those of them who kill most, receive great praise when they exhibit in public the horns as trophies of their success. These Uri, however, even when they are young, cannot be habituated to man and made tractable. The size and shape of their horns are very different from those of our oxen."*

The indomitable nature ascribed to these wild Uri exactly agrees with the description of the *R'ém* as given in chap. xxxix. of the Book of Job; and the apparently implied contrast which is made between the domestic ox and the wild *Urus* finds an analogue in the above extract from Cæsar. The same remark may be made with respect to the great size and strength of the Scriptural *R'ém* when contrasted with the domestic oxen of Palestine, the ancient inhabitants of which land would naturally draw the same comparison between their domestic cattle and the mighty *R'ém* as Cæsar's legions did between their cattle (*Bos longifrons*) and the great Hercynian wild bulls (*Bos primigenius*), whose bones are now occasionally found, together with those of the elephant, hyæna, &c., in the Tertiary deposits of this country.

It is time, however, to turn our attention to the Unicorns which are mentioned in the writings of the ancient Greeks and Romans.

The earliest record of the existence of a one-horned quadruped is to be found in Ctesias's Treatise on India (*Ἰνδική*), of which we possess an abridgement in Photius and a much more complete edition by Bähr. Ctesias lived in the time of Xenophon (circ. B.C. 400), and resided for many years in Persia as physician at the court of King Artaxerxes Mnemon. It was while he was there that he collected materials for the above-named treatise, which consists mainly of a description of the natural history of the north-west part of India: it must be borne in mind that his account of the natural history of that country was derived second-hand, for Ctesias was never himself in India. He must therefore be understood simply to give the Persians' own accounts

* Bell. Gall. vi. cap. 29.

of their various animals, which were doubtless often mixed with fable. Aristotle regarded Ctesias as a man utterly unworthy of credit*—rather a harsh judgment, it is true, but probably not very far from the mark. However, under the name of *ὄνοι ἄγριοι* (wild asses) Ctesias describes his Unicorns. He says, "They are as large as horses, and even larger, with white bodies, red heads, blue eyes, and have each on their foreheads a horn a cubit and a half long, the base of which is white, the upper part red, the middle part black. Drinking-cups are formed of these horns; and those who drink out of them are said to be subject neither to spasm nor epilepsy, nor to the effects of poison. Other asses have no astragalus; but these have one, as well as a gall-bladder. The astragalus I have seen myself: it is beautifully formed, in shape like that of an ox, and very heavy and red throughout. The animal is so swift that no horse can overtake it, and so strong and fierce that it is with difficulty destroyed by arrows and javelins. It begins its running slowly, but gradually increases its speed; it shows great attachment to its young, which it defends against its pursuers, fighting with horn, teeth, and heels. The flesh is so bitter that it is not eaten; but men set a high value on the horns and astragali."

Aristotle † simply mentions this Unicorn under the name of *ὄνος ἰνδικός* (Indian Ass). "We have never seen," he says, "a solidungulous animal with two horns; and there are only a few solidungulous animals with one horn, such as the Indian Ass and the Oryx (*ὄρυξ*). Of all animals with a solid hoof the Indian Ass alone possesses an astragalus."

Pliny's account of the Indian Ass is much the same as Aristotle's. "It is the only solidungulous animal that has an astragalus: the Oryx is one-horned, but it is cloven-footed" ‡. Pliny, it will be seen, here differs from Aristotle, who represents the Oryx as solidungulous. Here, then, it is evident we have two Unicorns—the solidungulous Indian Ass with an astragalus, and the Oryx. But it appears there is still another one-horned animal, viz. the Monoceros. "The Orsæau Indians," says the Roman naturalist §, "hunt a very fierce animal, called the Monoceros, which has the body of a horse, the head of a stag, the feet of an elephant, and the tail of a wild boar; it utters a deep lowing noise, and has a single horn, two cubits long, projecting from the middle of its forehead. They say this animal cannot be taken alive."

Ælian ||, who lived long subsequently to any of the above-named writers, mentions the *ὄνοι ἄγριοι* (the description of

* *οὐκ ὦν ἀξιόπιστος*, Hist. An. viii. 27. § 3.

† Hist. Anim. ii. 2. § 8.

‡ N. H. xi. 46.

§ N. H. viii. 21.

|| Nat. An. xvi. 20.

which is every word borrowed from Ctesias) and the Monoceros, which he says the natives of the interior of India call *Carcazonon**: it is the size of a full-grown horse, with a mane and yellow woolly hair, of extreme swiftness, with feet like the elephant and the tail of a wild boar; it has a black horn growing between the eyebrows, which is not smooth, but with natural convolutions, and is very sharp at the point; it emits loud discordant sounds; it lives peaceably with other animals, but quarrels with those of its own kind, the males even destroying the females, excepting at the breeding-season, at which time the animals are gregarious, but at other times they live in solitude in barren tracts. The Monoceros is endued with great strength, and is armed with an invincible horn."

The whole of the accounts of these Unicorns are so evidently deeply tinged with fable † that it is a matter of surprise how any persons should ever have supposed it possible that such animals might still be existing in unexplored countries. Major Latter, however, some years ago, was very sanguine of being able to find a veritable Unicorn in the interior of Tibet: he was informed by a native, that he had frequently seen these animals, which "were fierce and exceedingly wild, and seldom taken alive, but frequently shot;" and that they are frequently to be met with on the borders of the great desert, about a mile from Lassa. From a drawing which accompanied Major Latter's communication, the presumed Unicorn was something like a horse, but with cloven hoofs, a long curved (!) horn growing out of the forehead, and a boar-shaped tail ‡.

Mr. Campbell's § "discovery of the Unicorn in Africa" was nothing more than that of some species of Rhinoceros, which he identifies with the *R'ém* of the Hebrew Scriptures.

* There can be little doubt that the *Rhinoceros unicornis* is the animal which forms the groundwork of nearly all that the ancients have written on one-horned animals. The term which Ælian tells us is used by the natives of India to denote an animal with one horn, is almost identical with that employed by the Arabs and Persians to signify a Rhinoceros. "Vulgatissimum *monocerotis* nomen, nec solum apud Arabes sed et apud Persas, Tartaros atque Indos receptum est *Carcaudan* vel, ut plerumque scribitur, *Carcaddan*."—Bochart, *Hierozoicon*, ii. p. 318, ed. Rosenmüller. *Carcaddân* or *Carcadân* is the Arabic name for a Rhinoceros: see Freytag, *Lex. Arab. s. v.*, and Catafagos's *Arab. Dict.*

† Besides which, it must be remembered that not one of the Greek or Roman writers ever pretended to have seen the animal; the whole foundation rests on the account Ctesias received from the Persians. It is in vain, therefore, to seek for the origin of the story in the supposition that the ancient Greeks and Romans mistook the horns of some antelope seen in profile as if they were only one. The Unicorns, moreover, were supposed to be *Indian* animals, while travellers are hoping to find them in *Africa*.

‡ *Asiatic Journal*, xi. p. 154.

§ *Ib.* xii. p. 36.

The animal which Mr. Rüppell was told by a native existed in Africa, and which had a long straight horn growing from its forehead (?), was also doubtless a Rhinoceros.

Under the head of "Unicorns in Asia," in the 'Asiatic Journal' (vol. ii. new ser. 1830), a writer revives the opinion of the existence of veritable Unicorns, such as were reported to Major Latter: the animal in question was of the deer kind, having a single horn at the top of the head; it was known by the name of *Seru*. The editor of the 'Asiatic Journal' makes the following wise remark hereupon:—"When we consider that eight years have elapsed since Major Latter's account was given, and that, notwithstanding increased opportunities with Tibet, no fact has since transpired which supplies a confirmation of that account, excepting the obtaining a supposed horn of the supposed Unicorn, we cannot participate in these renewed hopes."

In vol. ii. p. 250 of the same Journal we read:—"Vertoman gives the following account of two Unicorns in Arabia:—In the other part of the temple of Mecca are parks or places enclosed, where are seen two Unicorns, and these are shown to the people for a wonder; the one of them, which is much higher than the other, is not much unlike a colt of two and a half years old; in the forehead grows one horn, straight forward, of the length of 3 cubits. The other is much younger, and like a colt one year old. The horn of this is of the length of four spans. The beast is of the colour of a horse, of a weasel-colour, with a head like a hart, but no long neck, a thin mane hanging only on one side. The legs of both are thin and slender, like a fawn or hind; the hoofs of the four feet are divided in two, much like the feet of a goat; the outer part of the hind feet is very full of hair. They seemed wild and fierce. They are sent to the Sultan of Mecca from the King of Ethiopia!"

There are other reports as to the existence of real Unicorns, such as those of Sparrmann, Lobo, Thenet (who asserted he had hunted Unicorns with the King of Monomotopa), Garcias, and others; but where a veritable animal is meant by the term, that animal is unquestionably some species of Rhinoceros; for all attempts to obtain a specimen of a quadruped with a single horn on its forehead have failed, and the accounts of the existence of such animals are very vague, and entirely unsupported by anything approximating to satisfactory evidence.

The one-horned animal of which Ctesias speaks is in all probability the *Rhinoceros unicornis*, exaggerated accounts of which would perhaps have been given him by the Persians, while his own love of the marvellous added the remainder. From Ctesias's one single-horned animal, in process of time there came to be at least three Unicorns, namely the ὄρνυξ, the ὄνος ἀγριος or ἰνδικός,

and the *μονόκερως*, no living representatives of any of which animals can be supposed to have any existence in nature*. Naturalists are, we believe, agreed upon the point that the so-called Unicorn is a fabulous animal from beginning to end. It has merely been my object in this paper to show how utterly groundless is the foundation on which the whole superstructure rests. We cannot, therefore, participate in the slightest degree in the hope that Dr. Baikie will be more successful than his predecessors.

BIBLIOGRAPHICAL NOTICES.

Naturhistorisk Tidsskrift (Journal of Natural History), founded by Dr. H. KRÖYER; edited by Prof. T. C. SCHJÖDTE at Copenhagen. Third Series, 1861. [Krøyer, *Contributions to the History of Mysidæ*; Meinert, *Anatomy of the Larva of Gastrus Equi*; Didrichsen, *Botanical Observations*; Schjødte, *Danish Harpalini, and Larvæ of Coleoptera, &c.*]

THE 'Naturhistorisk Tidsskrift,' or 'Journal of Natural History,' founded by Dr. Krøyer of Copenhagen, which, from 1837 to 1849, formed one of the principal means of literary communication for Danish naturalists, will be remembered by all those who occupy themselves with the fauna and flora of the North. The editor communicated through this channel a great many of his numerous and valuable contributions to the natural history of Crustacea and Fishes; but in 1849 he was forced by different circumstances to discontinue the journal, six substantial volumes having at that time been published. Travels and declining health afterwards prevented Dr. Krøyer from resuming the publication, which has thus been interrupted for twelve years. At present, however, Professor Schjødte, whose name as an entomologist is also well known in England, has undertaken the task of continuing the journal; and the first part of the third series appeared a twelvemonth ago. That it is an undertaking deserving the attention of English naturalists will appear from a review of the volume before us. It is a matter of course that the majority of the papers will always be in Danish; but the affinity of this language to the English is so great, that any person may easily acquire sufficient Danish for consulting scientific treatises in that language. Besides, the diagnoses and explanations of the plates are given in Latin; this is, at least, the case in the first part of the work, on which we will offer a few remarks.

It is headed by a paper from the pen of Dr. Krøyer, containing descriptions of several species of *Mysidæ* and similar Crustacea. Dr. Krøyer was one of the naturalists who accompanied the great expedition of 'La Recherche' to the Arctic regions, in 1838-1840,

* Pliny (N. H. viii. 21) says that "there are in India oxen with solid hoofs and a single horn." So here we have another kind of Unicorn.