

T H E M A N A T I*.

IN the animal kingdom, the terrestrial tribes commence where the fishes terminate. The
manati,

* The manati has pinniform fore-legs; hind-parts ending in a tail, horizontally flat. These animals are of an enormous size; some of them are twenty-eight feet long, and eight thousand pounds in weight. The head, in proportion to the bulk of the animal, is small, oblong, and almost square. The nostrils are filled with short bristles. The gape, or *ritus*, is small. The lips are double. Near the junction of the two jaws, the mouth is full of white tubular bristles, which serve the same use as the laminae of whales, to prevent the food from running off with the water. The lips are also full of bristles, which serve instead of teeth to cut the strong roots of the sea plants, which, floating ashore, are a sign of the vicinity of these animals. In the mouth are no teeth, only two flat white bones, one in each jaw, one above, another below, with undulated surfaces, which serve instead of grinders. The eyes are extremely small, not larger than those of a sheep. The iris is black. It is destitute of ears, having only two orifices, so small that a quill will scarce enter them. The tongue is pointed, and but small. The neck is thick, and its junction with the head scarce distinguishable; and the last always hangs down. The circumference of the body near the shoulders is twelve feet, about the belly twenty, near the tail only four feet eight; the head thirty-one inches; the neck near seven feet; And, from these measurements, may be collected the deformity of this animal. Near the shoulders are two feet, or rather fins, which are only two feet two inches long, and have neither fingers nor nails; beneath they are concave, and covered with hard bristles. The tail is thick, strong, and horizontal, ending in a stiff black fin, and like the substance

manati, which is neither a quadruped nor a whale, retains the two fore-feet, or rather hands, of the former. But the hind-legs, which, in the seal and walrus, are almost entirely included within the body, and very much contracted, are

substance of whalebone; and much spilt in the fore-part; the end slightly divided.

The skin is very thick, black, and full of inequalities, like the bark of oak, and so hard as scarce to be cut with an ax, and has no hair on it. Beneath the skin, is a thick blubber, which tastes like oil of almonds. The flesh is coarser than beef, and will not soon putrify. The young ones taste like veal. The skin is used for shoes, and for covering the sides of boats; Pennant's *Synops. of Zoad.* p. 355.

Manati; *Hernand. Mex.* p. 323. *De Lait.* p. 6.
Manatus; *Rondeletius.* p. 490. *Gesner. Pisc.* p. 213. *Clus. Exot.* p. 132. *Rail Synops. Zoad.* p. 193. *Klein. Zoad.* p. 84. *Seller Nov. Com. Petrop.* tom. ii. p. 294.
Le manatin; *Brisson. Zoad.* p. 164.
Trichechus; *Artid. Gen.* 79. *Syn.* 109.
Trichechus manatus, dentibus laevissimis inclusis; *Lacep. Syn. Nat.* p. 49.

It is alleged that the name *manatin* was applied to this animal, on account of its lamentable cries; which is entirely fabulous. This word is a corruption of the name given to the animal in the language of the Galibis, who inhabit Guiana, and of the Caribs, who live in the Antilles; for they are the same race of people, and have nearly the same language. They call the *manatin manati*, for which the negroes of the French islands, who corrupt words of every kind, by adding the article, made it *lamanati*. From *manati* they still farther corrupted it into *lamanati*, and *lamenti*. After which it was supposed to be derived from *lamentari*, on account of the supposed lamentations of the female when deprived of her young; *Lettre de M. de la Condamine à M. de Buffon*, du 28 Mai 1764. It ought, however, to be remarked, that *manati* is a Spanish word, which, according to several authors, denotes an animal with hands.

totally

totally obliterated in the manati. Instead of two short feet, and a still shorter tail, which the walrus carries in a horizontal direction, the manati has only a large tail, which spreads out like a fan, in the same direction; so that, at first sight, the tail of the former seems to be divided into three, and that, in the latter, these three parts appear to be united into one. But, from a more attentive observation, and particularly from dissection, it appears, that no such union takes place; that there is not a vestige of thigh-bones and legs; and that the bones which compose the tail of the manati are simple vertebrae, similar to those of the cetaceous animals, who have no feet. Hence those animals are cetaceous by the hind-part of their bodies, and are only allied to the quadrupeds by the two fore-feet or hands on each side of the breast. Oviedo seems to be the first author who has given a kind of history and description of the manati: 'This animal,' he remarks, 'is pretty frequent on the coasts of St. Domingo. He is very large, and of a deformed figure, with a head thicker than that of an ox, small eyes, and two feet or hands near the head, which serve him for swimming. He has no scales, but is covered with a very thick skin. He is a very gentle creature. He rises on the waves, and eats such herbage on the shore, as he can reach without coming out of the water. He generally

rally swims on the surface. In order to seize him, the people endeavour to approach him with a boat, and then dart at him a large arrow, fixed to a very long rope. As soon as he feels himself wounded, he runs off with the arrow and rope, to the extremity of which a large piece of cork or wood is tied, to serve as a buoy, that they may discover his route. When the animal is exhausted by the wound and loss of blood, he approaches the land. They then lay hold of the end of the rope, and coil it up, till a few fathoms only remain. By the aid of the waves, he is gradually brought to land, or he is killed in the water with spears. His weight is so great, that a carriage drawn with two oxen is necessary to transport him. His flesh is excellent, and, when fresh, is preferred to beef or fish. When cut into pieces and pickled, it in time acquires the taste of the tunny fish, and, in this state, it is most highly relished. Some of these animals are more than fifteen feet long, by six in thickness. The hind-part of the body is much thinner, and tapers toward the tail, which again spreads out at the extremity. As the Spaniards call the fore-feet of all quadrupeds *hands*, and as this animal has only two fore-feet, they have denominated it the *manati*, or the *animal with hands*. He has no external ears, but two apertures only, through which he hears. On his skin there are only a few scattered hairs; it is

' of an ash-colour, and an inch thick. Soles of shoes, belts, &c. are made of it. The female has two paps on her breast, and generally brings forth two young, which she suckles *.' All these facts related by Oviedo are true; and it is singular, that Ciega †, and several subsequent writers, should affirm, that the manati comes often out of the water to pasture on the land. They have been led into this notion from the analogy of the walrus and seals, which frequently quit the water, and continue for some time on the land. But it is certain that the manati never leaves the water, and that he prefers fresh water to salt.

Clusius measured the skin of one of these animals, and found it to be sixteen feet and a half long, and seven feet and a half broad; the two feet or hands were large, and armed with short claws. Gomara ‡ assures us, that he sometimes found them of twenty feet in length: and adds, that they frequent the rivers as well as the sea. He relates, that a young manati was reared in a lake in the island of St. Domingo during twenty-six years; that he was so gentle and tame, that he took peaceably the food which was presented to him; that he knew his name, and, when called upon, came out of the water, and crawled to the house to receive his

* Ferdin. Oviedo, Hist. Ind. Occid. lib. xiii. cap. x.

† Chron. Peruv. cap. xxxi.

‡ Fr. Lopes de Gomara, Hist. Gen. cap. li.

victuals;

victuals; that he seemed to be pleased with the human voice, and the chanting of children; that he had no fear; that he allowed the boys to sit on his back, and carried them from one end of the lake to the other, without plunging them into the water, or doing them any injury. This relation cannot be true in all its circumstances: It seems to be accommodated to the fable of the ancients concerning the dolphin; for the manati is unable to crawl on the ground.

Herrera says very little on this subject: He only assures us, that, though very large, the manati swims easily, makes no noise in the water, and dives when he hears any distant sound *.

Hernandes, who gives two figures of the manati, the one in profile and the other in front, hardly adds any thing to what had been said by former Spanish authors. He only remarks, that both the Atlantic and Pacific oceans, as well as the lakes, produce a deformed animal, called *manati*, the description of which he copies almost entirely from Oviedo; and then adds, that the hands of this animal have five nails, like those of man; that it has a large navel and anus; that the vulva resembles that of a woman; that the penis is like that of a horse; that the flesh and grease are similar to those of a fat hog; that the ribs and viscera resemble those of a bull; that they couple on land, the female lying on her back; and that they produce but one young,

* Descript. des Indes Occident. par Herrera, p. 57.

which

which is of a monstrous size the moment it is brought forth*. The copulation of these animals cannot take place on land, because they are unable to walk; but it is performed in shallow water. Binet† remarks, that the manati is of the size of an ox, and as round as a ton; that he has a small head, and very small tail; that his skin is as coarse and thick as that of the elephant; that some of them are so large as to yield more than six hundred pounds of excellent meat; that his grease is as mild as butter; that he delights in the mouths of rivers, where he browses the herbs which grow on the banks; that, in certain places, about ten or twelve leagues from Cayenne, they are so numerous, that a vessel may be filled with them in one day, by expert harpooners. Father Tertre, who gives a long account of the fishing of the manati, agrees almost in every article with the authors we have quoted. He remarks, however, that this animal has only four toes and four claws on each hand; and adds, that he feeds upon a small sea herb, which he browses in the same manner as an ox; and that, after being satiated with his food, he searches for the rivers and fresh waters, where he browses twice a-day; that, when his belly is full, he sleeps with his muzzle half out of the water, which makes him observable at a distance; that the female brings

* Hernand. Hist. Mex. p. 324.

† Voyage en l'île de Cayenne, par Antoine Binet, p. 346.

forth two young, which follow her every where; and that, when the mother is taken, we are certain likewise of having the young, who never depart from her, even when dead, but go perpetually round the vessel which carries her*. This last fact appears to be very suspicious: It is contradicted by other voyagers, who assure us that the manati produces but one at a time. As all large quadrupeds, and the whale tribes, produce one young only, analogy alone should prevent us from believing that the manati always brings forth two. Oexmelin remarks, that the tail of the manati is placed horizontally, like that of the cetaceous animals, and not vertically, like that of other fishes; that it has no fore-teeth, but only a kind of callosity as hard as a bone, with which it cuts the herbage; that it has thirty-two grinders; that it does not see well, on account of the smallness of its eyes, which secrete very little humour, and have no iris; that its brain is small; that, to supply the defect of good eyes, it has an excellent ear; that it has no tongue; that the organs of generation resemble those of man and woman more than any other animal; that the milk of the females, which he had tasted, is very good; that they produce but a single young one, which they embrace and carry with their hands; that the mother suckles it during a whole year, after which it is in a condition to eat herbage, and provide

* Hist. Gen. des Antilles, par le P. du Tertre.

for its own safety; that from the neck to the tail, this animal has fifty-two vertebræ; that it feeds like the turtle, but can neither walk nor crawl on the ground *. All these facts are pretty exact, and even that of the fifty-two vertebræ; for M. Daubenton, in the fœtus which he dissected, found twenty-eight vertebræ in the tail, sixteen in the back, and six, or rather seven, in the neck. This voyager is only deceived with regard to the tongue, which is not wanting in the manati. It is indeed fixed, almost to its extremity, to the under jaw. In the voyage to the American islands, we find a very good description of the manati, and the manner in which it is harpooned. The principal facts, mentioned by this author, correspond with those already quoted: But he remarks, 'That, since the coasts have been inhabited, this animal has become exceedingly rare in the Antilles; and that the one he saw and measured was fourteen feet nine inches from the muzzle to the origin of the tail. The whole body was round. The head was thick, and the mouth large, with great lips, and some long coarse hairs about them. The eyes were very small in proportion to the head; and the ears were only two small apertures. The neck is very thick and short; and, were it not for a small movement which makes it wrinkle, it would be impossible to distinguish the head from the body. Some

* Hist. des Avanturiers par Oexmelin, tom. xii. p. 134.

authors

authors pretend,' he adds, 'that this animal uses its two hands or fins for dragging itself along the ground. I made a particular inquiry concerning this fact. But no person had ever seen the animal on land; and it is impossible that it should either walk or crawl, the forefeet, or hands, serving only to hold its young when sucking. The female has two paps which I measured, and found each of them to be seven inches in diameter, by about four of elevation. The teat was an inch thick. The body was eight feet two inches in circumference. The tail was like a large pallet, nineteen inches in length, fifteen inches broad at the widest part, and about three inches thick at the extremity. The skin of the back was double the thickness of an ox's hide, but much thinner on the belly. It is of a brown slate colour, and of a coarse grain, with thick and pretty long hairs of the same colour, thinly scattered over the body. This manati weighed about eight hundred pounds. Along with the mother, the young one was taken, which was nearly three feet long. A part of the tail was roasted on a spit, and we found it to be as good and delicate as veal. The herb upon which these animals feed is from eight to ten inches long, narrow, pointed, tender, and of a beautiful green colour. In some places, this herb is so abundant that the bottom of the sea has the appearance of a meadow. The turtles

'turtles likewise feed upon it*,' &c. Father Magnin de Fribourg says, that the manati eats such grafs as he can reach without coming out of the water. . . . That its eyes are about the size of a filberd; that its ears are so narrow as hardly to admit a probe; that, within the ears, there are two small perforated bones; that the Indians hang these bones to their neck as a trinket. . . . Its cry resembles the lowing of a cow†.

Father Gumilla relates, that there are immense numbers of manati in the great lakes of the Oronoko: 'Each of these animals,' says he, 'weighs from six to seven hundred pounds. 'They feed upon herbs. Their eyes are very 'small, and the auditory passages still smaller. 'When the river is low, they come to pasture 'on its margin. The female always brings 'forth two young, which she carries at her paps, 'and holds them so firm with her two hands, 'that they never separate, whatever movement 'she makes. The young, when new born, 'weigh each of them thirty pounds. The 'milk of the female is very thick. Below the 'skin, which is much thicker than that of an ox, 'we find four strata, or layers; two of them 'consist of fat, and the other two of very tender, 'savory flesh, which, when roasted, has 'the flavour of pork and the taste of veal. These 'animals, when rain is about to fall, spring out

* Nour. Voy. aux Isles de l'Amerique, tom. II. p. 200.

† Extrait d'un MS. du Pere Magnin de Fribourg.

' of

' of the water to a considerable height*.' Both Gumilla and Tertre seem to be deceived, when they assert that the females produce two young at a time: For it is almost certain, as formerly remarked, that they bring forth one only.

In fine, M. de la Condamine, who obligingly communicated to me a drawing of the manati, made by himself, on the river of the Amazons, gives a more perfect account of the manners of this animal than any other author. 'Its flesh and 'fat,' he remarks, 'are analogous to those of 'veal: Father Acuna renders the resemblance 'still more complete, by bestowing horns on it, 'which Nature never provided. It is not, properly speaking, amphibious; for it cannot go 'entirely out of the water, having only, near 'the head, two flat fins, in the form of wings, 'about sixteen inches long, which serve it for 'arms and hands: It advances its head only 'out of the water, in order to reach the grafs 'upon the shore. The one of which I drew a 'figure was a female. Its length was seven 'feet and a half, and its greatest width two feet. 'I have since seen them much larger. The eyes 'of this animal have no proportion to the size 'of its body; they are round, and only three 'lines in diameter. The auditory passages are 'still smaller, and appear like pin holes. 'The manati is not peculiar to the river of the 'Amazons, but is equally common in the Oro-

* Hist. de l'Orenoque, par le P. Gumilla.

‘noko. It is also found, though not so frequently, in the Oyapoc, and in several other rivers in the neighbourhood of Cayenne, and on the coasts of Guiana, and probably elsewhere. This is the same animal which was formerly called *manati*, and now *lamantin*, at Cayenne, and in our American islands; but I believe the species is somewhat different. They are never met with in the high seas, and are even rare in the mouths of rivers. But they are found, at more than a thousand leagues from the sea, in most of the large rivers which fall into that of the Amazons, as in the Guallaga, the Pastaca, &c. In ascending the river of the Amazons, they are stopped by the Pongo (cataraet) of Borja, above which they never appear*.’

I have now given a concise account of all that is known concerning the manati. It were to be wished that some of the inhabitants of Cayenne, among whom there are several persons well acquainted with natural history, would examine this animal, and give us a description of its internal parts, particularly those of respiration, of digestion, and of generation. It appears, but we are by no means certain, that there is a large bone in the penis, and a foramen ovale in the heart; that the lungs are singularly constructed;

* Voyage sur la Riviere des Amazones, par M. de la Condamine, p. 154. Mem. de l’Acad. des Sciences, 1745, p. 464.

ed;

ed; and that it has several stomachs, as in the ruminating animals.

Besides, the species of the manati is not confined to the seas and rivers of the New World, but seems likewise to exist on the coasts and in the rivers of Africa. M. Adanson saw manatis in Senegal, from which he brought one of their heads and gave it to me; and, at the same time, he obliged me with a description of this animal, which he made on the spot, and which I here insert in his own words: ‘I saw many of these animals. The largest exceeded not eight feet long, and weighed about eight hundred pounds. A female of five feet three inches in length, weighed only a hundred and ninety-four pounds. They are of a blackish ash-colour. There are hairs thinly scattered over the whole body, in the form of bristles, and are nine lines long. The head is conical, and of a middling size, in proportion to that of the body. The eyes are round and very small. The iris is of a deep blue colour, and the pupil black. The muzzle is almost cylindrical; the two jaws are nearly of an equal size, and the lips are thick and fleshy. It has no teeth but grinders, in either jaw. The tongue is of an oval form, and attached, almost as far as the point, to the under-jaw. It is singular, that almost all authors and travellers have given ears to this animal. I could not discover, in any of them,

B B 3

‘a hole

‘ a hole sufficient even to admit a small probe *.
 ‘ He has two arms or fins, situated at the ori-
 ‘ gin of the head, which is not distinguishable
 ‘ from the trunk by any kind of neck, or by
 ‘ shoulders that are perceptible. These arms
 ‘ are nearly cylindrical, and consist of three
 ‘ principal articulations; the anterior one forms
 ‘ a kind of flat hand, in which the toes are
 ‘ only to be distinguished by four claws of
 ‘ a shining reddish brown colour. The tail is
 ‘ horizontal, like that of the whale; and it has
 ‘ the figure of a baker’s shovel. The female
 ‘ has two paps, rather elliptic than round, and
 ‘ situated near the pits of the arms. The skin
 ‘ is half an inch thick on the belly, nine lines
 ‘ on the back, and an inch and a half on the
 ‘ head. The fat is white, and two or three
 ‘ inches thick. The flesh is of a pale red colour,
 ‘ and more delicate than veal. The Jalofo Ne-
 ‘ groes call this animal *lercou*. It lives upon
 ‘ herbage, and is found in the mouth of the
 ‘ river Niger.’

From this description, it is obvious, that the
 manati of Senegal differs not from that of

* It is certain, however, that this animal has external auditory passages. M. de la Condamine informed me, that he had seen and measured them, and that they exceeded not half a line in diameter. As the manati has the power of contracting or shutting them, it is probable that they had escaped the observation of M. Adanson, especially as these passages are very small, even when the animal keeps them open.

Cayenne;

Cayenne; and, from a comparison made by M. Daubenton of the head of a Senegal manati with that of a foetus * of the Cayenne lamantin, he presumes that they are of the same species. The testimonies of travellers † correspond with our opinion: That of Dampier, in particular, is positive, and his remarks merit insertion:
 ‘ While we lay here, our Mulkito men went in
 ‘ their canoe, and struck us some manatee, or
 ‘ sea-cow. Besides this Blewfield’s river, I have

* This foetus was sent to us by M. le Chevalier Targot, governor of Guiana.

† Oexmelin relates, that there are lamantins on the coasts of Africa, and that they are more frequent on the Senegal coast than in the river Gambia; *Hist. des Avanturiers*, tom. ii. p. 115. Guat assures us, that he saw many of these animals off the island of Rodrigue. The head of the lamantin of this island, he remarks, resembles that of a hog, except that the snout is not so sharp. The large lamantins are about twenty feet in length. — This animal has warm blood, a coarse, hard, blackish skin, with some thinly scattered hairs on it, small eyes, and two holes, which it opens and shuts, and may be properly called its *ears*. As it often retracts its tongue, which is not large, several authors have imagined that it had none. It has grinders, but no cutting teeth; and its gums are sufficiently hard to enable it to browse herbage.

— I never saw above one young along with the females, which inclines me to think that they bring forth one only at a time. — We sometimes found three or four hundred of these animals together. They feed upon a kind of herb which grows in the bottom of the sea. They were so gentle, that we often felt them, in order to select the fattest. We passed a rope under their tail to pull them out of the water. We never seized the largest, because they would have cost us too much labour: Besides, their flesh is not so delicate as that of the young. — We never observed this animal on land, where I suspect it could not crawl; and I believe that it is not amphibious; *Voyage de la Guat*, tom. i. p. 93.

' seen of the manatee in the bay of Campeachy,
 ' on the coasts of Boca del Drago, and Bocco
 ' del Toro, in the river of Darien, and among
 ' the South Keys, or little islands of Cuba. I
 ' have heard of their being found on the north
 ' of Jamaica a few, and in the rivers of Surin-
 ' nam in great multitudes, which is a very low
 ' land. I have seen of them also at Mindanae,
 ' one of the Philippine islands, and on the coast
 ' of New Holland. . . . The manatee delights
 ' to live in brackish water; and they are com-
 ' monly in creeks and rivers near the sea. It is
 ' for this reason, possibly, they are not seen in
 ' the South Seas, that ever I could observe,
 ' where the coast is generally a bold shore, that
 ' is, high land, and deep water close home by
 ' it, with a high sea or great surges, except in
 ' the bay of Panama; yet even there is no ma-
 ' natee. Whereas the West Indies, being, as
 ' it were, one great bay composed of many
 ' smaller, are mostly low land and shoal water,
 ' and afford proper pasture, as I may say, for
 ' the manatee. Sometimes we find them in
 ' salt water, sometimes in fresh, but never far
 ' at sea. And those that live in the sea at such
 ' places where there is no river nor creek fit for
 ' them to enter, yet do commonly come once or
 ' twice in twenty-four hours to the mouth of
 ' any fresh water river that is near their place
 ' of abode. They live on grass seven or eight
 ' inches long, and of a narrow blade, which
 ' grows



SEAL.

Plate CCLIV.



WALRUS.

Plate CCLV.



SMALL SEAL.

PLATE CCLVII.



PLATE CCLVII.

PLATE CCLVII.



A. B. S. del.

YOUNG MONATI.

' grows in the sea in many places, especially
 ' among iflands near the main. This grafs grow-
 ' eth likewise in creeks, or in great rivers near
 ' the fides of them, in fuch places where there
 ' is but little tide or current. They never come
 ' afhore, nor into fhallower water than where
 ' they can fwim. Their flefh is white, both
 ' the fat and the lean, and extraordinary sweet
 ' wholefome meat. The tail of a young cow
 ' is much efteemed; but, if old, both head and
 ' tail are very tough. A calf that fucks is the
 ' moft delicate meat; privateers commonly roaft
 ' them, as they do alfo great pieces cut out of
 ' the bellies of the old ones.'