THE NEW
ENCYCLOPÆDIA;
OR, MODERN UNIVERSAL DICTIONARY
ARTS AND SCIENCES. ON A NEW AND IMPROVED PLAN. IN WHICH ALL THE RESPECTIVE SCIENCES ARE ARRANGED INTO
COMPLETE SYSTEMS, THE ARTS DIGESTED INTO DISTINCT TREATISES,
And Philofophical Subjects introduced in feparate Differtations. ALSO, The DETACHED PARTS of KNOWLEDGE ALPHABETICALLY ARRANGED, and COPIOUSLY EXPLAINED, according to the BEST AUTHORITIES.
Including all the material Information that is contained in CHAMBERS'S CYCLOPÆDIA, the ENCYCLOPÆDIA BRITANNICA, AND THE FRENCH ENCYCLOPEDIE.
The Whole containing a copious DIGEST and DISPLAY of the complete THEORY and PRACTICE of the LIBERAL and MECHANICAL ARTS.
Repository of Ancient and Modern Literature, Freed from the Obscurities, Errors, and Superfluities of other DICTIONARIES. And including all the NEW IMPROVEMENTS and LATEST DISCOVERIES made in the ARTS and SCIENCES, particularly
Acoufics AcrologyBelles-Lettres Book-keepingConics CofmographyEntomology EthicsGeometry GrammarLaws LogicMilitary Affairs Mineralogy ManetifmOrnithology PaintingRhetoric RitesAcroftation AgricultureBotany Brewing AgricultureCriticifm Brewing Dialling FarrieryFarriery Fencing HandicraftsCounery MagnetifmMilitary Affairs Mineralogy MagnetifmOrnithology Painting PerfpectiveRhetoric Sculpture Painting PerfpectiveAgriculture Agriculture Agriculture Anphibiology Anphibiology Anphibiology Chronology Artimetic Antomy Chronology Chronology Drawing Artimetic Anatomy
A GENERAL CIRCLE OF SCIENCE; AND FORMS THE MOST COMPREHENSIVE LIBRARY OF UNIVERSAL KNOWLEDGE THAT WAS EVER PUBLISHED IN THE ENGLISH LANGUAGE.
IN THREE VOLUMES.
By WILLIAM HENRY HALL, Esquire.
The Second Edition. Revised, Corrected, and Enlarged, with confiderable Additions, Improvements, and modern Discoveries,
BY THOMAS AUGUSTUS LLOYD, Affifted by Gentlemen of Scientific Knowledge.
NON SIBI, SED PATRIÆ. CATO. VOL. III.
Illustrate with upwards of One Hundred and Fifty large fuperb Copper-Plates, accurately defcriptive of the different Subjects to which they refer.
LONION: PRINTED FOR C. COOKE, No. 17, PATER-NOSTER-ROW; AND SOLD BY THE BOOKSELLERS OF BATH, BRISTOL, BIRMINGHAM, CANTERBURY, CAMBRIDGE, COVENTRY, CHESTER, DERBY, EXETER, GLOUCESTER, HEREFORD, HULL, IPSWICH, LEEDS, LIVERPOOL, LEICESTER, MANCHESTER, NEWCASTLE, NORWICH, NOTTINGHAM, NORTHAMPTON, OXFORD, READING, SALISBURY, SHERBORN, SHEFFIELD, SHREWSBURY, WORCESTER, WINCHESTER, YORK; AND BY ALL OTHER BOOKSELLERS IN ENGLAND, SCOTLAND, AND
IRELAND,

Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN 1

gation of which he commenced in the fortieth year of his age, when he affumed the title of the apoftle of God: and having gained nine difciples, fome of whom were the principal men of the city, in the forty-fourth year of his age he openly published his imposture to the people of Mecca, and declared himfelf a prophet fent by God to recover them from Paganifm, and to teach them the true religion. However, he was obliged to abandon Mecca, and to fettle at Medina, on the 16th of July, A. D. 622, the year of the hegira, or Mahometan epocha : here his party confiderably increafed, and having made feveral fuccefsful excursions against the Arab tribes, and constrained them by force to embrace his religion, his fovereignty was established in 628, and he united in himfelf the facred character of chief pontiff of his religion, as well as the royal; both which characters he transmitted to all his fuccesfors, who, by the title of caliphs, reigned after him. But they were afterwards deprived of the regal authority; first by the governors of the provinces, who, about the year of the hegira, 325, alfumed it to themselves, and made themfelves kings in their refpective governments; and then by others who arofe on this diffraction of the empire to usurp upon them, till at last they had nothing left but the name and shadow of what they had once been. In the year of Chrift 629, Mahamet, at the head of an army of ten thousand men, reduced Mecca, and extended his conquests, with his religion, through most parts of Arabia : and the remaining Arabs fubmitted and embraced his imposture in 631. In the next year he died at Medina, being, according to fome hiftorians, fixty-three years of age.

Mahometanifm is embraced by the Turks, Persians, and feveral nations among the Africans, and many among the East Indians. Brerewood fays, that if we divide the known countries of the earth into thirty equal parts, five of them are Christians, fix Mahometans, and nineteen Pagans. The fystem of Mahometanifm is contained in the Koran, commonly called the Alcoran. See the article ALCORAN.

The first and chief article of the Mahometan creed is, that there is no other God but one God; which they have from the Koran, where these words are repeated incellantly: there is no other God but he. Your God is the only God. I am God, and there is no other God but I. This grand axiom of their theology feems to have been taken from the Jews, who were continually rehearing those words of Deuteronomy, Hear, O Ifrael! the Lord our God is One.

For this reafon the *Mahometans* account all fuch as own any thing of number in the divinity to be infidels or idolaters. And accordingly, one of the first lessons they teach their children is, that God is neither male nor female, and confequently can have no children. The fecond article of *Mahometanifm* confifts in this, that Mahomet was fent from God. By which they exclude all other religions; under pretence that their prophet was the last and greater of all the prophets that God would ever fend, and that as the Jewish religion ceased with the coming of the Mession of *Mahomet*. Not but they own Moses and Jesus Christ to have been great prophets; but *Mahomet* they hold to be *The Prophet*, by way of excellence, commissioned to purge the holy fcriptures of the Old and New Testament, which they allow, from the corruption introduced in them by Jews and Christians, and to reftore the law of God to its original purity; and the paraclete or comforter promifed in the fcriptures.

The Mahometans call their religion Islam, denoting, as fome fay, refignation or fubmiffion to the fervice and commands of God; but, according to others, formed from the root falama, fignifying to be faved, and therefore the fame with the religion or flate of falvation; and they divide it into two diffinet parts, viz. mian, i. e. faith or theory; and din, i. e. religion or practice : and teach, that it is built on five fundamental points, one belonging to faith, and the other four to practice. Under the confettion of faith already recited, they comprehend fix diffinct branches, viz. belief in God; in his angels; in his fcriptures; in his prophets; in the refurrection and day of Judgment; and in God's abfolute decree and predefination both of good and evil. The four points relating to practice, are prayer, under which are comprehended those wathings or purifications which are necellary preparations required before prayer; alms; fafting; and the pilgrimage to Mecca. The Mahometans are taught by the Koran, that God, in divers ages of the world, gave revelations of his will in writing to feveral prophets, the whole, and every word of which, it is abfolutely necellary for every good Mollem to believe. Mahomet acknowledges the divine authority of the Pentateuch, Pfalms, and Gofpels, and often appeals to the confonancy of the Koran with those writings, and to the prophecies which he pretended were contained concerning himfelf, which the Jews and Chriftians have fupprefied. At death, they maintain, that the bodies of those who believe the unity of God, and the million of Mahomet, reft in peace, and are refreshed with the air of Paradife: otherwife they are grievoully tormented. The fouls of the former are conveyed to heaven, where a place is affigned them according to their merit and degree; those of the wicked are tormented, till they are rejoined to their boand the set of the set of a set of the set of the set of the

dies at the refurrection; the approach of which will be known by certain figns that precede it.

They maintain that infidels only will be liable to eternal punifhment; but the Moflems or believers will be delivered thence, after they have expiated their crimes by their fufferings. This place of punifhment is feparated from paradife by a wall, fo fmall in breadth as to admit the bleffed and damned to converfe together. The righteons will be refreiched by drinking at the pond of their prophet, and then admitted into paradife, fituated in the feventh heaven, and next to the throne of God; where they will feed on the moft delicious fruits; be cloathed in the moft fplendid filken garments; refreiched with rivers of water, wine, milk and honey; and entertained with the moft delightful mufic, and the ravifhing girls of paradife with black eyes, the enjoyment of whofe company will be a principal felicity of the faithful.

It appears from the Koran, that women as well as men will not only be punished for their evil actions, but also receive the rewards of their good deeds, and that both will enjoy aperpetual youth. The orthodox doctrine with refpect to predefination is; that every thing which happens in this world proceedeth en-tirely from the divine will, and is irrevocably fixed from all eternity. As to the four fundamental points of religious practice, Mahomet is faid to have declared, that the practice of religion is founded on cleanlinefs, which is one half of the faith, and the key of prayer, without which it will not be heard by God. Such is the opinion which the Mahometans entertain of cleanlinefs, that it is purely on this account they feem to have adopted circumcifion, though it be not mentioned in the Koran. Mahomet has obliged his followers to pray five times every twenty-four hours, at certain flated times, turning their faces towards the temple at Mecca, which is pointed by a niche in their molques: the life and fpirit of prayer, they hold as the inward difpoling of the heart; nor do they ever perform this duty in fumptuous apparel, nor fuffer their women to attend them on these occasions. Alms among the Mahometans are legal and voluntary; the giving of which is frequently inculcated in the Koran. Fafting is called by *Mahomet*, the gate of reli-gion; and his followers are expressly required to fait during the month of Ramadan; which they observe by abstaining from meat, drink, and women, from day-break till fun-fet. Befides this, they have feveral other voluntary fafts. The pilgrimage to Mecca is fo necessary a point of practice, that, according to a tradition of Mahamet, he who dies without performing it, may as well die a Jew or a Chriftian; and it is expressly commanded in the Koran. The various ceremonies prefcribed to those who perform this pilgrimage are extremely abfurd and ridiculous, and appear to be relics of idolatrous fuperstition.

Befides the fundamental points of faith and practice above recited, the Mahometans are required by the Koran to abftain from wine, gaming, ufury, divining by arrows, the eating of blood and fwines' flefh, and whatever dies of itfelf, or is flain in honour of any idol, or ftrangled, or killed by an accident, or by any other bealt. The Koran allows Polygamy within certain limits; forbidding any man to have more than four, whether wives or concubines; but Mahomet had the privilege of marrying as many wives, and keeping as many concubines as he pleafed. It allows alfo of divorce; but feverely punifhes fornication and adultery.

The rapid fuccefs which attended the propagation of this religion, was owing to caufes that are plain and evident, and mult remove, or rather prevent, our furprize, when they are attentively confidered. The terror of Mahomet's arms, and the repeated victories which were gained by him and his fucceffors, were, no doubt, the irrefiftble arguments that perfuaded fuch multitudes to embrace his religion, and fubmit to his dominion. Befides, his law was artfully and marvelloufly adapted to the corrupt nature of man; and, in a more particular manner, to the manners and opinions of the eaftern nations, and the vices to which they were naturally addicted: for the articles of faith which it propofed were few in number, and extremely limple; and the duties it required were neither many nor difficult, nor fuch as were incompatible with the empire of appetites and paffions.

MAJOR, in logic, is understood of the first proposition of a regular fyllogism. It is called *major*, because it has a more extensive fense than the *minor* proposition, as containing the principal term. See the System, Part III. Sect. V.

MALACHI, the Prophecy of, is one of the canonical books of the Old Teftament, written by Malachi, who was probably contempory with Nehemiah, and lived about 428 years before Chrift. The chief corruptions which he charges upon the Jews are the fame with those for which they were reproved by Nehemiah; he forbids them to expect any farther fuccellion of prophets, exhorts them to observe the law of Moses, and predicts the coming of Elias, or John the Baptist, as the forerunner of the Messiah.

MAMMALIA, a name given by Linnæus to his first or principal class of animals, which comprehends not only all the animals generally stiled quadrupeds, but also the cetaceous order, and the human species.

THE authors who have written on quadrupeds are numerous, and many of them very ancient; their accounts alfo are proved to be in many cafes imaginary or fabulous. Later authors have much improved the fcience; and many valuable works are published in various languages on this fubject. But as it would be impossible to do justice to the merits of each, we shall content ourfelves with mentioning principally those of our own countrymen, which are chiefly in English, to which we shall subjoin a lift of the fcientific works that are most in use. Our valuable and much respected naturalist Ray's Synopsis of Quadrupeds, prin-ted in London in 1693, is an excellent work. Edwards's Natural Hiftory of Birds, publiched in 1750, and his Gleanings of Natural Hiftory, 1758, 1760, and 1764, contain fome excellent figures of quadrupeds. The Hiftory of Animals by Dr. Hill, in folio, 1752, is not defitute of merit. The Natural Hiftory of Carolina, by Mr. Catefby, contains fome few animals; but we are more particularly indebted to Mr. Pennant for his British Zoology, in folio, 1766; in 8vo. 1768; Pennant's Indian Zoology, 4to, 1769. Synophis of Quadrupeds, October 1771. To these we may add the Outlines of Natural History of Great Britain and Ireland, by Dr. Berkenhout; and the Hittory of the Earth, and animated Nature, by Dr Goldfinith; and above all, a general Hiftory of Quadrupeds with wooden figures, engraved by T. Bewick, published lately at Newcaftle upon Tyne; a work that mult immortalize the name of the engraver, and give an excellent outline to the reader of this branch of knowledge. And much ufeful information may be acquired from the Elements of Natural Hiltory, by our Botanic Professor at Cambridge, Mr. Thomas Martin, B. D.

The fystem of Mr. Ray obtained very generally among naturalifts, till, in the year 1735, Linnæus firit published his System. This was followed by feveral others, varying in the arrangement of the animal kindgdom, even to the last edition of 1767. Under the clafs, which he denominates MAMMALIA, he comprehends not only all the animals which we call quadrupeds (the lizard genus, or rather the reptiles pedati excepted) but alfo the cetaceous order, or whales, cachalots, and porp ifes ; juttifying this arrangement of whales with quadrupeds, from the agreement of these animals in the ftructure of the heart, in the respiration by means of lungs, in their having moveable eye-lids and ears, in being viviparous, furnished with teeth, and other particulars, by which they differ fo materially from fifnes, as more than to counterbalance

their living with them in the fame element. Mr. Pennant, in his Synoplis of *Quadrupeds*, and profeffor Martin, in his Elements of Natural History, by including fome animals that were unknown to Linnaus, and giving the rank of fpecies to feveral that were confidered by him as varieties, have extended the number of mammalia to two hundred and eighty-nine fpecies. Mr Klein, in 1751, published a new system of quadru-peds, intitled Quadrup. Dispositio brevisque Hist. Natur. in which he distributes them into two orders; the first comprehending those whole feet are terminated by one or more hoofs, and the fecond those which are digitated; and each of these orders is subdivided into five families or claffes. In his first order he follows the general arrangement of Mr. Ray, which he has confiderably improved: but in the fecond, by a fervile regard to a method founded on the number of toes, he has combined very opposite animals; the camel and the floth, the mole and the bat, the glutton and the ape.

Mr. Pennant has introduced fome ufeful alterations in his Hiftory of Quadrupeds: this ingenious naturalist has followed Mr. Ray in his greater division of animals into *hoofed* and *digitated*; but, after the manner of Mr. Klein, he has formed feparate genera of the rhinoceros, hippopotamus, tapiir, and musk. The appear are continued in the rank in which Mr. Ray placed them, and are followed by the maucaucos. The carnivorous animals are arranged according to the fyftem of Linnæus, omitting the feal, mole, fhrew, and hedge-hog. The herbivorous or frugivorous *quadrupeds* occupy the clafs affigned them by Mr. Ray, to which he here all the mile the mole and the hedge here he has alloted likewife the threw, the mole, and the hedge-hog. The fourth fection of digitated quadrupeds confifts of those which are abfolutely defitute of cutting teeth, fuch as the floth and armadillo. The fifth fection is formed of those which are defti-The tute of teeth of every kind, fuch as the manis and ant-eater. third and fourth orders or divisions which Mr. Pennant has added, are the pinnated and the winged quadrupeds; the first comprehends the walrus, the feals, and (in conformity to preceding writers) the manati. But thefe, he observes, feem as the links between the *quadrupeds* and the cetaceous animals. The bats are *winged quadrupeds*, and form the next gradation from this to the class of birds. See Pennant's Hift. of Quadrupeds, ed. 8vo. 1781. Preface.

Some naturalists object to the method adopted by Ray and others, of dividing animals into fanguineous, or fuch as have blood, and exfanguineous, or fuch as have no blood ; alledging, that all animals are fanguineous, fince all have a vital fluid circulating through veins and arteries, though it be not of a red colour in all. The effential character of the blood is not in its crimfon colour, but in its office: in which view every fluid, by whofe motion through veffels the life of an animal is fuffained, may be denominated blood. But this is rather a difpute about words than things.

M. Briffon in 1756 published a system, in which he has arranged animals by the number or defect of their teeth ; beginning with those that are toothlefs, fuch as the ant-eater, and ending with those that are toothlefs, fuch as the ant-eater, and ending with those that have the greatest number, fuch as the opollum. By this arrangment, fome quadrupeds, very distant from each other in their manners, are too nearly connected. We shall fay no-thing of M. Buston's History of Quadrupeds, though it contains much information; as he has difregarded fystematic arrangement. The branch of natural history now under our confideration is

The branch of natural hiftory now under our confideration is the molt comprehensive of all others, extending not only throughout that part of the animal kingdom, generally termed Quadru-peds, (the lizard tribe excepted,) but including alfo the cetaceous order, or whales, and the human fpecies. This clafs at first fight appears to unite animals, not only totally diffimilar in their outward appearance, but in no refpect analogous in their habits and difpolitions. A morenice infpection, and clofer examination, will, however, foon convince us of their fimilarity and near alliance. The outward appearance indeed affords an altonishing variety, but the inward ftructure is nearly alike in all the genera. They breathe through lungs, are viviparous, and fuckle their young by means of mammillæ or teats, which differ in fituation, and are more or lefs, in proportion to the number of young brought forth by each fpecies.

If we take the pains to examine the internal firucture and wonderful mechanism of the human frame, and compare it with that of beafts, as exemplified in our Systems of Anatomy and Comparative Anatomy, we shall find an astonishing fimi-larity and agreement : composed of the fame materials, furnished with the fame organs, which are acted upon exactly in the fame manner; they are equally liable to accident, decay, and putrefaction. It appears evident that we are a connecting link of that great chain by which all beings are united, and it is poffible that we are much further removed from the first great mover of all things, than from the most minute and apparently trifling part of the creation.

CLASSICAL CHARACTERS.

The term mammalia has been adopted by Linnxus in preference to any other, as being more expressive; for although all that class of animals called quadrupeds, the lizard tribe except-ed, are arranged in this class, yet it also comprehends the ceta. ceous order, as whales, porpoifes, &c. and alfo the human species; all of which are furnished with mamma, or breasts, and univerfally fuckle their young; which is their diffinguishing characteriffic.

The heart has two auricles, and two ventricles; with a warm red blood. They breathe by means of the lungs reciprocally. Their jaws are incumbent, covered, furnished with teeth. The males have an external *penis*. The females a *clitoris* and *nymphæ*; are viviparous and fuckle. The organs of fenfe are the tongue, nofe, eyes, ears, papilla. The covering (a few genera and the whole of order 7 excepted) is hair. They are fupported by four legs (order 1, 7 and 8 excepted.) The body is terminated by a tail in most of the species. The neck has feven vertebra!

SYSTEMATIC ARRANGEMENT.

There are three particular diffinctions in this clafs of animals : the first is Digitated or Clawed, the fecond Hoofed, and the third Defitute of Hoofs and Claws ; as follows:

1. DIGITATED OR CLAWED.

ORDER 1. Primates. Four teeth, fore canine fingle. ORDER 2. Bruta. Fore teeth or cutting teeth none.

ORDER 3. Feræ. Fore teeth, 6, 2, 10, conical, canine fingle. ORDER 4. Glires. Fore teeth, two; canine none.

II. HOOFED.

ORDER 5. Pecora. Fore teeth, none above. ORDER 6. Bellux. Fore teeth, above and below.

III. DESTITUTE OF HOOFS AND CLAWS.

ORDER 7. Cete. Teeth various in the different genera. Characterific Defcription of the ORDERS. ORDER I. PRIMATES.

Four parallel cutting teeth in the upper jaw; fharp; one canine on each fide. Two pectoral mammæ. Feet like hands, with flat nails. Frugivorous.

ORDER II. BRUTA. No cutting teeth; feet with firong claws. The two first genera feed on herbs and fruits, the two last on infects. ORDER III. FER.Æ.

Six fharp cutting teeth in the upper jaw, one canine on each fide; feet digitated with fubulate claws: for this order there are exceptions which will be fhewn under their general characters.

ORDER IV. GLIRES. Two fharp cutting teeth in each jaw, but remote from the grinders; no canine teeth; feet digitated. Herbivorous or Frugivorous.

ORDER V. PECORA.

No cutting teeth in the upper jaw; fix or eight in the lower jaw, very remote from the grinders; feet hoofed, cloven; Herbivorous.

ORDER VI. BELLUÆ.

Cutting teeth in both jaws obtufe; feet hoofed. Herbivorous. ORDER VII. CETE. Breathing apertures on the head; pectoral fins; tail placed hori-zontally; no claws. Food mostly fifth, element the water.

CLASSIFICATION

Original from UNIVERSITY OF MICHIGAN

.

CLASSIFICATION OF THE GENERIC CHARACTERS. ORDER I. PRIMATES. GENUS 1. HOMO. Man. Linnæus has given great offence to many perfons by placing man among the brute creation; but we agree with Dr. Pulteney, "that he, though human, ftands as an animal in the fyftem of nature, at the head of this order; and as fuch is here deferibed, with his feveral variation, obferently in fuch is here described, with his feveral varieties, observable in the different quarters of the globe, in a manner, and with an accuracy, peculiar to our author, and which we may venture to fay is no where elfe to be met with. But man is not left by Lin-naus to contemplate himfelf merely as fuch; but he is led to the confideration of what he ought to be, as an intelligent and moral being; in a comment on the Grecian Sage's distate, Know Thyfelf: by the true application of which, he cannot but be fufficienty eleby the true application of which, he cannot but be furniciently ele-vated above every humiliating idea which can otherwife arife from fuch an affociation. There are five fpecies of this genus accord-ing to Linnæus, viz. Americanus, Europæus, Afiaticus, Afer, Monftrofus. See MAN. GENUS 2. SIMIA. Apc. Cutting teeth 4, above and below clofe, one canine tooth on each fide feparate; grinders obtufe. This genus contains as foreign and is divided into a families viz

clofe, one canine tooth on each fide feparate; grinders obtufe. This genus contains 33 fpecies, and is divided into 3 families, viz. The first Family are without tails, and called Apes, of which there are three fpecies, viz. Satyrus, Sylvanus, Inuus. The fecond Family have fhort tails, and are called Baboons. There are three fpecies, viz. Nemestrina, Apedia, Sphinx. The third Family have long tails, and are called Monkeys. There are 27 fpecies, viz. Maimon, Hamadryas, Veter, Silenu, Faunus, Belzebul, Seniculus, Paniscus, Cynomolgus, Cynocephalus, Diana, Sabæa, Cephus, Trepida, Aygula, Pithecia, Nictitans, Jacchus, Oedipus, Rosalia, Midas, Fatuellus, Apella, Capucina, Sciura, Morta, Syrichta. Morta, Syrichta.

GENUS. 3. LEMER. Macauco. Cutting teeth, 4 above, 6 be-low; canine one, clofe; grinders, fublobate; the first longer and

flow; canne one, cloie; grinders, tubiobate; the init longer and fharper. This genus comprehends five fpecies, viz. Tardigradus, Mongoz, Macaco, Catta, Volans. GENUS 4. VESPERTILIO. Bat. Fore toes elongated, and con-nected by membranes, performing the office of wings. This genus comprehends fix fpecies, viz. Vampyrus, Spectrum, Perfpicillatus, Spacma Auritus Murinus Spafma, Auritus, Murinus.

ORDER II. BRUTA.

GENUS 5. ELEPHAS. Elephant. Tufks and grinders only³ long probofcis. There is only one fpecies of this genus, viz.

Elephas. GENUS 6. TRICHECHUS. Walrus. Tufks above only; grinders formed of a rugged bony substance; hinder feet formed into fins.

There are two fpecies of this genus, viz. Rofmarus, Manatus. GENUS 7. BRADYPUS. Sloth. Grinders only; first grinders long; body hairy. There are two fpecies of this genus, viz. Tridactylus, Didactylus.

GENUS 8. MYRMECOPHAGA. Ant-eater. No teeth. Body hairy. This genus comprehends four species, viz. Didactyla, Tridactyla, Jubata, Tetradactyla.

Jubata, Tetradactyla. GENUS 9. MANIS. No teeth, body fcaly. There are two fpecies of this genus, viz. Pentadactyla, Tetradactyla. GENUS 10. DASYPUS. Armadillo. Grinders only; no canine teeth; covering of the body cruftaceous. This genus comprehends fix fpecies, viz. Unicinctus, Tricinctus, Quadricinctus, Sexcinctus, Septemcinctus, Novemcinctus.

ORDER III. FERÆ.

GENUS 11. PHOCA. Seal. Fore-teeth above 6; below 4. There are three fpecies of this genus, viz. Urfina, Leonina, Vitulina. GENUS 12. CANIS. Dog. Fore-teeth 6, and 6; middle ones above; lobated. This genus comprehends nine fpecies. As there are many varieties in the first fpecies, called Canis Fomiliaris, or are many varieties in the interpretes, canted Cants Femiliaris, or Dog, we have divided them into five families, viz. Canes Venatici, or Dogs of the Chace; Canes Aucupientes, or Fowling Dogs; Canes Agreftes, or Farm Dogs; Canes Hybrydes, or Mongrel Dogs; and Canes Aquatici, or Water Dogs. The other fpecies are the follow-ing; Lupus, Hyæna, Vulpes, Alopex, Lagopus, Aureus, Mexicanus, Thous.

https://hdl.handle.net/2027/mdp.39015084591695

use#pd

trust.org/access

GMT

http://www.hath

Generated on 2022-08-14 12:55 Public Domain / http://www.h

nus, Thous. GENUS 13. FELIS. Cat. Fore-teeth 6, and 6: lower ones, equal; tongue very rough. This genus comprehends feven fpecies, viz. Leo, Tigris, Pardus, Onca, Pardalis, Catus, Lynx. GENUS 14. VIVERRA. Civet. Fore-teeth 6, and 6: middle ones below, fhort. This genus comprehends fix fpecies, viz. Ichneumon, Nafur, Narica, Putorius, Zibetha, Genetta. GENUS 15. MUSTELA. Weafel. Fore-teeth 6, and 6; lower ones clofe together: 2 placed inwards. This genus comprehends

ones close together; 2 placed inwards. This genus comprehends eleven species, viz. Lutris, Lutra, Lutreola, Barbara, Gulo, Mar-

cleven species, viz. Lutris, Lutra, Lutreola, Barbara, Gulo, Mar-tes, Putorius, Furo, Zibellina, Erminea, Nivalis. GENUS 16. URSUS. Bear. Fore-teeth 6, and 6 upper ones hollowed. Toes 5 and 5: walks on the whole heel. Tongue fmooth; fnout long; nicitating membrane; a bent bone to the penis. This genus comprehends four fpecies, viz. Arctos, Meles, Lotor, Lufcus.

GENUS 17. DIDDELPHIS. Opoffum. Fore-teeth above 10; below 8. Toes 5, and 5; hind-feet like a hand. A falfe belly in fome fpecies. This genus comprehends five fpecies, viz. Marfupialis, Philander, Opoffum, Murina, Dorfigera.

GENUS 18. TALPA. Mole. Fore-teeth 6 above ; 8 below : fore feet broad, hind fmall. There are two fpecies of this genus, viz. Europæa, Afiatica.

GENUS 19. SOREX. Shrew. Fore-teeth 2 above; 4 below: ears fmall, fnout long and flender. This genus comprehends five fpecies, viz, Criftatus, Minutus, Aquaticus, Murinus, Araneus. GENUS 20. ERINACEUS. Hedge-hog. Fore-teeth, 2 above, dif-tant; 2 below, nearer together. There are three species of this genus, viz. Europæus, Inauris, Malaccenfis,

ORDER IV. GLIRES,

GENUS 21. HYSTRIX. Porcupine. Body covered with quills. This genus comprehends four species, viz. Cristata, Prehenfilis, Dorfata, Macroura.

GENUS 22. LEPUS. Hare. Fore-teeth above, double. This ge-nus comprehends four species, Timidus, Cuniculus, Capensis, Brafilienfis.

GENUS 23. CASTOR. Beaver. Fore-teeth above, truncated, and hollowed. There are three species of this genus, viz. Fiber, Mofchatus, Zibethicus.

GENUS 24. MUS. Rat. Fore-toeth above fubulated. This genus comprehends twenty-one fpecies, viz. Porcellus, Aguti, Le-porinus, Citellus, Lemmus, Paca, Marmota, Monax, Cricetus, Terrestris, Amphibius, Rattus, Musculus, Avellanarius, Querci-nus, Gregarius, Sylvaticus, Striatus, Longipes, Jaculus, Volans.

GENUS 25. SCIURUS. Squirrel. Fore-teeth above cuneated; below compressed. This genus comprehends eleven species, viz. Vulgaris, Niger, Cinereus, Flavus, Palmatus, Getulus, Striatus, Glis, Æftuans, Volans, Sagitta. GENUS 26. NOCTILIO.

There is but one fpecies of this genus, viz. Americanus. We have omitted the defcription and reprefentation of this genus, as it is the general opinion of naturalifts at this time, that Sebal's figure, from which Linnzus formed it, is only a variety of the Vefpertilio, or common Bat; at the fame time we think it incumbent on us, to retain it in the order of claffification, as well to avoid confusion, as to preferve an uniform adherence to the fystem, as laid down by the immortal Linnæus. Had we omitted it, Came-lus would have been the 26th inftead of the 27th genus, and Mofchus the 27th instead of the 28th, and so on to the close of the Syftem, by which means the whole order from genus 26 would

Syftem, by which means the whole order from genus 26 would have been perverted, and the Syftem of courfe greatly deranged. ORDER V. PECORA.
GENUS 27. CAMELUS. Camel. No horns; fore-teeth in the lower jaw 6. Canine, g in the upper, 2 in the lower jaw. Upper lip cloven. Hoofs not divided through. This genus comprehends four fpecies, viz. Dromedarius, Bactrianus, Glama, Pacos. GENUS 28. MOSCHUS. Mufk. No horns; one canine tooth on each fide in the upper jaw, ftanding out of the mouth. There are three fpecies of this genus, viz. Mofchiferus, Grimia, Pygmæus. GENUS 29. CERVUS. Deer. Horns folid, branched, deciduous; no canine teeth. This genus comprehends feven fpecies, viz. no canine teeth. This genus comprehends feven fpecies, viz. Camelopardalis, Alces, Elaphus, Tarandus, Dama, Capreolus, Guincenfis.

Guincentis. GENUS 30. CAPEA. Coat. Horns hollow, creft, bending back; no canine teeth. This genus comprehends twelve fpecies, viz. Hircus, Ibex, Mambrica, Rupicapra, Depreffa, Reverfa, Ga-zella, Cervicapra, Bezoartica, Dorcas, Tatarica, Ammon. GENUS 31. OVIS. Sheep. Horns hollow, wrinkled, fpiral; no canine teeth. This genus comprehends three fpecies, viz. Aries, Guincenfis, Strepficeros.

Genus 32. Bos. Ox. Horns hollow, extending outwards, fmooth; no canine teeth; a dewlap. This genus comprehends fix fpecies, viz. Taurus, Bonafus, Bifon, Grunniens, Bubalis, Indicus.

ORDER VI. BELLUÆ. GENUS 33. EQUUS. Horfe. Fore teeth 6 and 6; canine fingle, remote; hoofs undivided. There are three fpecies of this genus, viz. Caballus, Afinus, Zebra.

GENUS 34. HIPPOPOTAMUS. River Horfe. Fore teeth 6 above, and 4 below; canine fingle and truncated. Profeffor Martin and Mr. Pennant defcribe this animal as having only four cutting teeth above and below. There is but one species of this genus, viz. Amphibius.

GENUS 35. SUS. Hog. Fore teeth, 4 above, 6 below; canine teeth 2 above and 1 below; the inferior ones flanding out of the mouth are called tufks; fnout long, truncated. This genus com-prehends five species, viz. Scrofa, Porcus, Tajacu, Hydrochæris, Barbyruffa.

GENUS 36. RHYNOCEROS. Fore teeth, two in each jaw on both fides; horn folid, conical on the nofe. There is but one fpecies of this genus, viz. Unicornis.

GENUS 37. MONOBON. Narwal. Two long, ftrait, fpiral teeth, perforating the upper lip. There is but one species of this genus, viz. Monoceros.

GENUS 38. BALENA. Whale. Horny laminæ, inftead of teeth, in the upper jaw. This genus comprehends four fpecies, viz. Myfticetus, Phyfalus, Boops, Mufculus. GENUS 39. PHYSETER. Cachalot. Teeth in the lower jaw only.

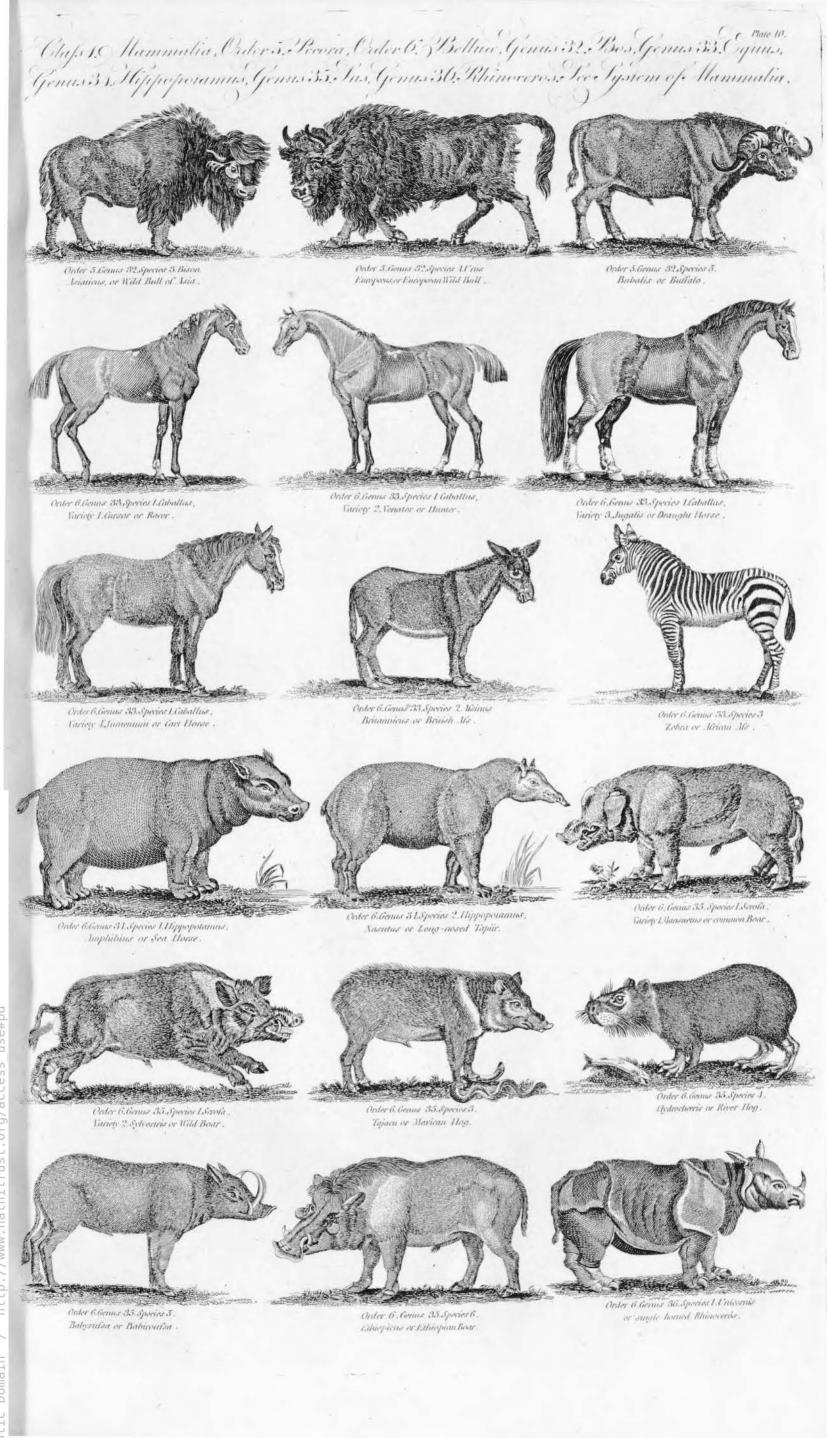
This genus comprehends four species, viz. Catodon, Macrocephalus, Microps, Turfio.

GENUS 40. DELPHINUS. Dolphin. Teeth in both jaws. There are three species of this genus, viz. Phocæna, Delphis, Orca.

In this System we have not entered into a general description of all the Animals which compose this part of Natural History, but have confined ourfelves to the Claffification, in order to convey to our Readers a clearer knowledge of the fystematical arrangement. It was therefore deemed more eligible to give their peculiarities under their respective Ge-neric Names. Should any of our Readers wish to have a knowledge of the particulars above alluded to, they are referred to the various Genera of the feveral Orders, as they are inferted in the course of the Alphabet, in which is included an enumeration of feveral Species of each respective Genus. Genus.

For particular information concerning the Claffification of the other branches of Zoolagy, fee the Claffes which compose the animal kingdom, under the titles of Ornithology, Ichthyology, Entomology, Vermeology, Zoology, Bc. 1

T. LLOYD.



Digitized by UNIVERSITY OF MICHIGAN Original from UNIVERSITY OF MICHIGAN