

P R E F A C E.

THE following work was originally intended for private amusement, and as an Index, for the more ready turning to any particular animal in the voluminous history of quadrupeds by the late *Comte DE BUFFON*: But as it swelled by degrees to a size beyond my first expectation, in the end I was determined to fling it into its present form, and to usher it into the world.

THE present edition has presumed to alter its title of *SYNOPSIS* to that of *HISTORY*; not only on account of the vast additions it has received, by favour of my friends, but likewise to prevent confusion among such who may think them worthy of the honor of quotation.

THE Synopsis of our illustrious countryman, Mr. RAY, has been long out of print; and though, from his enlarged knowledge and great industry one might well suppose his Work would for some time discourage all further attempts of the same sort, yet a republication of that Synopsis would not have answered our present design: For, living at a period when the study of Natural History was but beginning to dawn in these Kingdoms, and when our contracted Commerce deprived him of many lights we now enjoy, he was obliged to content himself with giving descriptions of the few Animals brought over here,

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and collecting the rest of his materials from other Writers. Yet so correct was his genius, that we view a systematic arrangement arise even from the Chaos of *Aldrovandus* and *Gesner*. Under his hand the indigested matter of these able and copious Writers assumes a new form, and the whole is made clear and perspicuous.

FROM this period every Writer on these subjects proposed his own method as an example; some openly, but others more covertly, aiming at the honor of originality, and attempting to seek for fame in the path chalked out by Mr. RAY; but too often without acknowledging the merit of the Guide.

MR. KLEIN, in 1751, made his appearance as a Systematic Writer on Quadrupeds, and in his first order follows the general arrangement of Mr. RAY; but the change he has made of separating certain animals, which the last had consolidated, are executed with great judgment. He seems less fortunate in his second order; for, by a servile regard to a method taken from the number of toes, he has jumbled together most opposite animals; the *Camel* and the *Sloth*, the *Mole* and the *Bat*, the *Glutton* and *Apes*; happy only in throwing back the *Walrus*, the *Seal*, and the *Manati*, to the extremity of his system: I suppose, as animals nearly bordering on another class.

M. BRISSON, in 1756, favored the world with another system, arranging his animals by the number or defect of their teeth; beginning with those that were toothless, such as the *Ant-eater*, and ending with those that had the greatest number, such as the *Opoffum*. By this method, laudable as it is in many respects, it must happen unavoidably that some quadrupeds, very distant from each other in their manners, are too closely connected in
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his System; a defect which, however common, should be carefully avoided by every Naturalist.

IN point of time, LINNÆUS ought to have the precedence; for he published his first System in 1735. This was followed by several others, varying constantly in the arrangement of the animal kingdom, even to the edition of 1766. It is, therefore, difficult to defend, and still more ungrateful to drop any reflections on a Naturalist, to whom we are so greatly indebted. The variations in his different Systems may have arisen from the new and continual discoveries that are made in the animal kingdom; from his sincere intention of giving his Systems additional improvements; and perhaps from a failing, (unknown indeed to many of his accusers) a diffidence in the abilities he had exerted in his prior performances. But it must be allowed, that the Naturalist ran too great a hazard in imitating his *present* guise; for in another year he might put on a new form, and have left the complying Philosopher amazed at the metamorphosis.

BUT this is not my only reason for rejecting the system of this otherwise able Naturalist: There are faults in his arrangement of *Mammalia**, that oblige me to separate myself, in this one instance, from his crowd of votaries; but that my secession may not appear the effect of whim or envy, it is to be hoped that the following objections will have their weight.

I REJECT his first division, which he calls *Primates*, or Chiefs of the Creation; because my vanity will not suffer me to rank man-

* Or animals which have paps and suckle their young; in which class are comprehended not only all the genuine quadrupeds, but even the Cetaceous tribe.

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kind with *Apes*, *Monkeys*, *Maucaucos*, and *Bats*, the companions LINNÆUS has allotted us even in his last System.

THE second order of *Bruta* I avoid for much the same reason: The most intelligent of Quadrupeds, the half reasoning *Elephant*, is made to associate with the most discordant and stupid of the creation, with *Sloths*, *Ant-eaters*, and *Armadillos*, or with *Manaties* and *Walruses*, inhabitants of another element.

THE third order of *Ferae* is not more admissible in all its articles; for it will be impossible to allow the *Mole*, the *Shrew*, and the harmless *Hedge-hog*, to be the companions of *Lions*, *Wolves*, and *Bears*: We may err in our arrangement.

*Sed non ut placidis coeant immitia, non ut
Serpentes avibus gementur, tigribus agni.*

IN his arrangement of his fourth and fifth orders we quite agree, except in the single article *Noctilio*, a species of Bat, which happening to have only two cutting teeth in each jaw, is separated from its companions, and placed with Squirrels, and others of that class.

THE sixth order is made up of animals of the hooved tribe; but of genera so different in their nature, that notwithstanding we admit them into the same division, we place them at such distances from each other, with so many intervening links and softening gradations, as will, it may be hoped, lessen the shock of seeing the *Horse* and the *Hippopotame* in the same piece. To avoid this as much as possible, we have flung the last into the back ground, where it will appear more tolerable to the Critic, than if they were left in a manner conjoined.

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THE last order is that of Whales : which, it must be confessed, have, in many respects, the structure of land animals; but their want of hair and feet, their fish-like form, and their constant residence in the water, are arguments for separating them from this class, and forming them into another, independent of the rest.

BUT while I thus freely offer my objections against embracing this System of Quadrupeds, let me not be supposed insensible of the other merits of this great and extraordinary person: His arrangement of fishes, of insects, and of shells, are original and excellent; he hath, in all his classes, given philology a new language; hath invented apt names, and taught the world a brevity, yet a fulness of description, unknown to past ages: he hath with great industry brought numbers of synonyms of every animal into one point of view; and hath given a concise account of the uses and manners of each, as far as his observation extended, or the information of a numerous train of travelling disciples could contribute: His Country may triumph in producing so vast a Genius, whose spirit invigorates science in all that chilly region, and diffuses it from thence to climates more favorable, which gratefully acknowledge the advantage of its influences.

LET us now turn our eyes to a Genius of another kind, to whom the History of Quadrupeds owes very considerable lights: I mean the *Comte de Buffon*, who, in the most beautiful language, and in the most agreeable manner, hath given the amplest descriptions of the œconomy of the whole four-footed creation*: Such is his eloquence, that we forget the exuberant manner in which he treats each subject, and the reflections he often casts on other

* For the anatomical part is the province of M. *D'Aubenton*.

Writers;

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Writers; the creation of his own gay fancy. Having in his own mind a comprehensive view of every animal, he unfortunately seems to think it beneath him to shackle his lively spirit with systematic arrangement; so that the Reader is forced to wander through numbers of volumes in search of any wished-for subject. The misunderstanding between these two able Naturalists is most injurious to science. The *French* Philosopher scarcely mentions the *Swede*, but to treat him with contempt; *Linnaeus*, in return, never deigns even to quote *M. de Buffon*, notwithstanding he must know what ample lights he might have drawn from him.

I SHALL in a few words mention the plan that is followed in the present distribution of quadrupeds, and at the same time shall claim but a small share of originality.

I COPY *Mr. RAY*, in his greater divisions of animals into hoofed, and digitated; but, after the manner of *Mr. KLEIN*, form separate genera of the *Rhinoceros*, *Hippopotame*, *Tapiir*, and *Musk*. The *Camel* being a ruminating animal, wanting the upper fore-teeth, and having the rudiments of hoofs, is placed in the first order, after the *Musk*, a hornless cloven-hoofed quadruped.

THE *Apes* are continued in the same rank *Mr. RAY* has placed them, and are followed by the *Mancaucos*.

THE carnivorous animals deviate but little from his system, and are arranged according to that of *LINNAEUS*, after omitting the *Seal*, *Mole*, *Shrew*, and *Hedge-hog*.

THE herbivorous or frugivorous quadrupeds keep here the same station that our countryman assigned them; but this class comprehends besides, the *Shrew*, the *Mole*, and the *Hedge-hog*. The *Mole* is an exception to the character of this order, in respect to the number of its cutting teeth; but its way of life, and its food

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food, place it here more naturally than with the *Feræ*, as LINNÆUS has done. These exceptions are to be met with even in the method * of that able Naturalist; nor can it be otherwise in all human systems; we are so ignorant of many of the links of the chains of beings, that to expect perfection in the arrangement of them, would be the most weak presumption. We ought, therefore, to drop all thoughts of forming a system of quadrupeds from the character of a single part: but if we take combined characters, of parts, manners, and food, we bid much fairer for producing an intelligible system, which ought to be the sum of our aim.

THE fourth section of digitated quadrupeds, consists of those which are absolutely destitute of cutting teeth, such as the *Sloth* and *Armadillo*.

THE fifth section is formed of those which are destitute of teeth of every kind, such as the *Manis* and *Ant-eater*.

THE third and fourth orders, or divisions, are the *Pinnated* and the *Winged Quadrupeds*; the first takes in the *Walrus* and the *Seals*, and (in conformity to preceding Writers) the *Manati*. But those that compose this order are very imperfect: Their limbs serve rather the use of fins than legs; and their element being for the greatest part the water, they seem as the links between the quadrupeds and the cetaceous animals.

THE *Bats* again are winged quadrupeds, and form the next

* Such as the *Trichecus Rosmarus*, which has four distinct grinders in every jaw, the *Phoca Ursina* and *Leonina*, the *Mustela Lutris*, and the *Sus Hydrocharis*; and particularly in the genus of *Vespertilio*, which consists of numbers of species, many of which vary greatly in the number of their fore teeth.

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gradation from this to the class of Birds; and these two orders are the only additions I can boast of adding in this Work.

So far of System; the rest of my plan comprehends numerous Synonyms of each Animal, a brief description, and as full an account of their place, manners, or uses, as could be collected from my own observations, or the information of others; from preceding Writers on the subject; from printed Voyages of the best authorities, or from living Voyagers, foreign and *English*; from different *Museums*, especially the public MUSEUM in our capital, from the Directors of which I have received every communication that their politeness and love of science could suggest.

I AM unwilling to weary my friends with a repetition of acknowledgements; but must renew my thanks to Sir JOSEPH BANKS, Bart. for variety of information collected from his papers, and from his magnificent Collection of Drawings; many of which are considerable ornaments to this Work, and to the GENERA OF BIRDS.

FROM the matchless collection of Animals, collected by the indefatigable industry of that public-spirited Gentleman, the late Sir ASHTON LEVER, I had every opportunity, not only of correcting the descriptions of the last edition, but of adding several Animals hitherto imperfectly known. His *Museum* was a liberal fund of inexhaustible knowledge in most branches of Natural History; which still remains an honor to his spirit, as well as a permanent credit and advantage to our country. It is now the property of Mr. PARKINSON, into whom no small portion of the zeal of the late enthusiastic and worthy owner for its improvement, seems to have transmigrated.

I am highly indebted to Doctor SHAW, of the *British Museum*, a rising Naturalist, for several valuable communications.

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TO JOHN GIDEON LOTEN, Esq; late Governor in the *Dutch* settlements in *India*, this book is under the greatest obligation for variety of remarks, relative to the Animals of the Islands. To alleviate the cares of government, he amused himself with cultivating our beloved studies, and brought home a most numerous collection of Drawings, as elegant as faithful. These have proved the basis of two works: Mr. *Peter Brown* etched chiefly the contents of his *Illustration of Zoology* from them; and the *Indian Zoology*, lately republished with considerable improvements.

MR. ZIMMERMAN, Professor of Mathematics at *Brunswick*, has by his correspondence, and his admirable book of *Zoologic Geography*, enabled me to speak with great precision of the Animals of different climates, and to ascertain their different abodes and final limits.

I RESERVE for the last acknowledgement, that learned Traveller and Naturalist Doctor PALLAS, who, under the patronage of a munificent Empress, hath pervaded almost all parts of her extensive dominion, and rendered familiar to us countries unvisited for centuries, and scarcely known till elucidated by his labors. His liberal mind, far from thinking they should be *damnati tenebris*, has not only given the most ample account of the regions he has visited, but by a rare facility of communication, continues to inform and instruct by correspondence, in every matter in which his friends are desirous of information. In this light is owing, more than I can express, increase and accuracy to my present labors, and a vast fund for future.

This work had once a chance of having been executed by his most masterly hand. I had the good fortune to meet with him at the *Hague* in 1766, when our friendship commenced. I there pro-

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posed to him the undertaking, and he accepted it with zeal. This preface will shew his plan; but he was called away to greater and more glorious labors: the world need not be told how fully they have been accomplished.

I WILL now only add, that if this book has the fortune to be any ways useful to my countrymen, in promoting the knowledge of Natural History, my principal object will be answered: let it be treated with candor till something better appears; and when that time comes, the Writer will chearfully resign it to oblivion, the common fate of antiquated Systems.

Thomas Pennant.

DOWNING,
DECEMBER, 1792.

METHOD.