

they are enabled to eject by a simple apparatus.—The whole of this class of creatures are cold-blooded, and possess a languid circulation.

The class *Mammalia* comprises a large number of animals of very diverse forms and habits, mostly inhabiting the land, but some live wholly in water: while others seem adapted to both conditions indifferently. As they all bring forth their young alive, they are designated viviparous: and from having the function of secreting milk for their young, arises their distinctive appellation. This extensive class has been divided by naturalists into several groups, or orders, which our limits will only allow us barely to enumerate.

(1.) The *Cetacea*, or whale tribes: although inhabitants of the water, yet they breathe by lungs, and bring forth alive and suckle their young. The whale, therefore, does not properly belong to the class of fish. It is a warm-blooded animal, sometimes of stupendous size, inhabiting the colder seas, being cased in a thick covering of fat called blubber, which besides yielding a large quantity of valuable oil after the animal is dead, is of the greatest use to it while living, enabling it to retain the necessary degree of animal heat in the coldest medium in which it can be placed.

(2.) *Ruminantia*, or such animals as return to the mouth the coarsely bruised food that has passed into the stomach, to be again subjected to mastication; a process usually called *chewing the cud*.—Animals of this order subsist solely on vegetable food, admit generally of domestication, and are of the greatest utility to man. The camel is admirably adapted for traversing arid sands, hence it has been designated “the ship of the desert;”—while the goat, the sheep, and the ox have accompanied man from the earliest periods of civilization, forming one of the chief sources of his wealth, and furnishing him with food and clothing. “The very species have been subjected to our will; they till the ground for our support, and bear our burdens; they yield us milk, and hair, and wool; and finally, they render up their bodies for our food, and their skins for our covering.”

(3.) *Pachydermata*, or thick-skinned animals, comprehends many of the largest, and some of the most useful races. Among the former may be mentioned the elephant, the rhinoceros, and the hippopotamus, (river-horse); while the latter contains the horse, the ass, and the hog, which have existed in a state of domestication from the very earliest records of our race.

(4.) *Edentata*, or animals devoid of cutting teeth. In this division may be instanced the sloth, armadillo, and the ant-eater; likewise that most singular

animal of New Holland, the duck-bill, which was for a long time regarded as a bird.

(5.) *Rodentia*, or gnawing animals, some of which are exceedingly troublesome and injurious, and incapable of domestication, as the rat and mouse.—Others are naturally timid and shun the presence of man, as the hare and squirrel; while several exhibit extraordinary instinct in constructing their dwellings, as for instance the beaver: and many remain in a state of torpidity, as the dormouse, during winter.

(6.) The *Marsupialia*, or marsupial animals, characterised by having a pouch attached to their abdomen, in which the young find both food and protection. This is a very singular class of animals, abounding in New Holland: the kangaroo and opossum being characteristic specimens.

(7.) The *Carnivora*, or flesh-eating animals, hence commonly denominated beasts of prey. This order is exceedingly numerous; including seals and walruses, which are as destructive in the ocean as others are on land. The dog tribe, comprehending wolves, jackals, and foxes; also bears, racoons, weasels, and the sanguinary family of cats: the lion, tiger, leopard, &c. are all included in the order carnivora.

(8.) *Insectivora*, animals that live principally on insects. Familiar examples may be seen in the shrew, the hedge-hog, and the mole. Animals of this order frequently burrow under ground, and are no doubt of great use in the general economy of nature. The soft harmless little mole is too often treated in the spirit of a relentless and indiscriminating destruction; while amidst the many useful services which it renders, we know of only a single injury—and that accidental—which it does the farmer, that of occasionally stopping by its burrows, under-ground drains.

(9.) *Cheiroptera*, including that most singular tribe of animals the bats, which of all the mammalia, have alone the power of flight. They subsist chiefly on insects, caught during the night; some however, partake of fruits, and a few are said to have the propensity of sucking the blood of larger animals during sleep. In warm climates bats attain to a large size. By a peculiar conformation of their limbs they are able not only to fly like a bird, but can attach themselves to trees and the rafters of old buildings; and in cold climates they usually hibernate in some warm protected place during the rigours of winter.

(10.) *Quadrumania*, or four-handed animals, including among others, the numerous varieties of apes, monkeys, and baboons. These animals are frequently found in large communities in the luxuriant forests of the tropics, and of all creatures approach nearest to the form of man.