THE

ANIMAL KINGDOM,

ARRANGED IN CONFORMITY WITH ITS ORGANIZATION.

BY THE BARON CUVIER,

PERPETUAL SECRETARY TO THE ROYAL ACADEMY OF SCIENCES, ETC. ETC. ETC.

TRANSLATED FROM THE FRENCH,

AND ABRIDGED

FOR THE USE OF SCHOOLS, &c.

BY H. M'MURTRIE, M.D. &c. &c.

NEW YORK:

G. & C. & H. CARVILL.

MDCCCXXXIII.

gitudinal stria, and finely striated transversely. No external organ whatever is perceptible, and internally we find nothing but the ova, variously distributed in the length of the parenchyma.

They inhabit the abdomen of certain Birds, and particularly of various fresh-water Fishes, enveloping and constricting their intestines to such a degree as to destroy them. At certain periods they even perforate the parietes of their abdomen to leave it. One of them, the

L. abdominalis, Gm., inhabits the Bream. In some parts of Italy these worms are considered agreeable food.

CLASS III.

ACALEPHA.(1)

Our third class comprises Zoophyta which swim in the waters of the ocean, and in whose organization we can still perceive vessels, which, it is true, are generally mere productions of the intestines excavated in the parenchyma of the body.

ORDER I.

SIMPLICIA.

The simple Acalepha float and swim in the ocean by the alternate contractions and dilatations of their body, although their substance is gelatinous and without any apparent fibres. The species of vessels observed in some of them are hollowed out of their gelatinous substance; they frequently and evidently originate from the stomach, and do not occasion a true circulation.

Medusa, Lin.

The Medusæ are furnished superiorly with a disk more or less convex, resembling the head of a mushroom, and called the *umbella*. Its contractions

---

(1) Nettles, from ακαλυφη.

and dilatations assist the locomotion of the animal. The edges of this umbella, as well as the mouth, or the suckers more or less prolonged into pedicles which supply the want of it, in the middle of the inferior surface, are furnished with tentacula of various forms and very different sizes. These various degrees of complication have given rise to numerous divisions.

The two following genera, which were formerly joined with the Medusæ, might also constitute a small family in this order, on account of the internal cartilage which supports the gelatinous substance of the body.

Porpita, Lam.

Where this cartilage is circular and its surface marked with concentric striæ crossed by radiating striæ. The superior surface is merely invested with a thin membrane that projects beyond it; the inferior is covered with a great number of tentacula, the exterior of which are the longest, and furnished with little cilia, each terminated by a globule. They sometimes contain air; those in the middle are the shortest, simplest and most fleshy. In the centre of all these tentacula is the mouth, in the form of a little salient proboscis. It leads to a simple stomach surrounded by a sort of glandular substance. One species is known, of a beautiful blue colour, that inhabits the Mediterranean and seas of hot climates.

Velella, Lam.

Where, as in Porpita, there is a mouth in the inferior surface in the form of a proboscis, surrounded with innumerable tentacula, the exterior of which is the longest, but the latter are not ciliated, and a still more important character is, that the cartilage, which is oval, has on its superior surface a vertical and tolerably elevated crest. This cartilage is diaphanous, and is merely marked with concentric striæ. A species of this genus also is known, of the same colour as the Porpita and inhabiting the same seas. It is eaten fried.

ORDER II.

HYDROSTATICA.

The Hydrostatic Acalepha are known by one or more bladders usually filled with air, by means of which they suspend themselves in their liquid element. Excessively numerous and variously shaped appendages, some of which probably serve as suckers, and the others

perhaps as ovaries, and some longer than the rest as tentacula, are attached to these vesicles and compose the whole apparent organization of these animals. They have no apparent mouth, or one which can be decidedly considered as such.

Physalia, Lam.

The Physaliæ resemble an extremely large oblong bladder elevated superiorly into an oblique and wrinkled crest, and furnished beneath, near one of its extremities, with numerous, cylindrical, fleshy productions, variously terminated, that communicate with the bladder. Those in the middle give origin to more or less numerous groups of little filaments; the lateral ones are merely divided into two threads, one of which is frequently very long. There appears to be an extremely small orifice in one of the extremities of the bladder, but internally no other intestine is found, but another bladder with thinner parietes. There is no nervous, circulating, nor glandular system. The animal swims on the surface of the sea when it is calm, employing its crest as a sail. When living, it is also furnished with extremely long filaments, more slender than the others, which are sprinkled, as it were, with pearls or drops. Its touch is said to sting and burn like that of the Sea-nettle. They are found in all the seas of hot climates.

Physsophora, Forsk.

These Acalepha are evidently allied to the Physaliæ, but their bladder is proportionally much smaller, has no crest, and is frequently accompanied by lateral bladders; their various and numerous tentacula are suspended vertically under the bladder, like a garland or cluster.

It is directly after these hydrostatic Acalepha that we may place the

Diphyes, Cuv.

A very singular genus, where two different individuals are always found together, one encased in a cavity of the other, but susceptible of being separated without destroying the life of either. They are gelatinous, diaphanous, and move nearly in the manner of a Medusa. The *receiver* produces from the bottom of its cavity a chaplet which traverses a semi-canal in the *received*, and appears to be composed of tentacula, and suckers, like those of the preceding genera.

This genus has been divided by Messrs Quoy and Gaymard according to the relative form and proportions of the two individuals.