

we now confine ourselves,) in a scientific point of view, and in a way which shows genius.

We may pass over, therefore, the other ancient authors from whose writings Cuvier, with great learning and sagacity, has levied contributions to the history of ichthyology; as Theophrastus, Ovid, Pliny, Oppian, Athenæus, Ælian, Ausonius, Galen. We may, too, leave unnoticed the compilers of the middle ages, who did little but abstract and disfigure the portions of natural history which they found in the ancients. Ichthyological, like other knowledge, was scarcely sought except in books, and on that very account was not understood when it was found.

Period of Erudition.—Better times at length came, and men began to observe nature for themselves. The three great authors who are held to be the founders of modern ichthyology, appeared in the middle of the sixteenth century; these were Bélon, Rondelet, and Salviani, who all published about 1555. All the three, very different from the compilers who filled the interval from Aristotle to them, themselves saw and examined the fishes which they describe, and have given faithful representations of them. But, resembling in that respect the founders of modern botany, Brassavola, Ruellius, Tragus, and others, they resembled them in this also, that they attempted to make their own observations a commentary upon the ancient writers. Faithful to the spirit of their time, they are far more careful to make out the names which each fish bore in the ancient world, and to bring together scraps of their history from the authors in whom these names occur, than to describe them in a lucid manner; so that without their figures, says Cuvier, it would be almost as difficult to discover their species as those of the ancients.

The difficulty of describing and naming species so that they can be recognized, is little appreciated at first, although it is in reality the main-spring of the progress of the sciences of classification. Aristotle never dreamt that the nomenclature which was in use in his time could ever become obscure;³ hence he has taken no precaution to enable his readers to recognize the species of which he speaks; and in him and in other ancient authors, it requires much labor and great felicity of divination to determine what the names mean. The perception of this difficulty among modern naturalists led to systems, and to nomenclature founded upon system; but these did not come into

³ Cuvier, p. 17.