

myriopods, spiders, and crustacea, but besides these, a large number of the worms, especially the ringed worms. The third main division comprises the molluscous animals (Mollusca)—slugs, snails, mussels, and some kindred groups. Finally, the fourth and last circle of the animal kingdom comprises the various radiated animals (Radiata), which at first sight differ from the three preceding types by their radiated, flower-like form of body. For while the bodies of molluscs, articulated animals, and vertebrated animals consist of two symmetrical lateral halves—of two counterparts or antimera, of which the one is the mirror of the other—the bodies of the so-called radiated animals are composed of more than two, generally of four, five, or six counterparts grouped round a common central axis, as in the case of a flower. However striking this difference may seem at first, it is, in reality, a very subordinate one, and the radial form has by no means the same importance in all “radiated animals.”

The establishment of these natural main groups or types of the animal kingdom by Bär and Cuvier was the greatest advance in the classification of animals since the time of Linnæus. The three groups of vertebrated animals, articulated animals, and molluscs are so much in accordance with nature that they are retained, even at the present day, little altered in extent. But a more accurate knowledge soon showed the utterly unnatural character of the group of the radiated animals. Leuckart, in 1848, first pointed out that two perfectly distinct types were confounded under the name, namely, the *Star-fishes* (Echinoderma)—the sea-stars, lily encrinites, sea-urchins, and sea-cucumbers; and, on the other hand, the *Animal-plants*, or *Zoophytes* (Coelenterata,