several pursuits,—the bees humming over the flowers; the butterflies opening and shutting their painted wings to the sun; the gnats, and gnat-like flies, rising and falling alternately in the sunbeams; the beetle wheeling his droning flight; others coursing over the ground; the grasshopper chirping in every bank,—all adding to the general harmony, and combining to make the general picture one of life and LOVE; and speaking, each in different sort and manner, the praises of its Creator, and calling upon man to join in the general hymn.

CHAPTER XXI.

FUNCTIONS AND INSTINCTS. FISHES.

THE animals we have hitherto considered have been destitute of an internal jointed vertebral column and its bony appendages; and though some, as the Cephalopods and some slugs,* have a kind of internal bone, and in one Order of Polypest the axis is sometimes articulated, yet these, especially in the latter instance, merely indicate an analogical relation, but no affinity. In none of these instances is this internal bone perforated for the passage of a spinal marrow, as in a real vertebrated column; we now, however, enter that superior section of the animal kingdom, the individuals belonging to which, with scarcely any exception, are built upon the column in question, encasing a spinal marrow, and terminated at its upper extremity by a bony casket, calculated to contain and protect the most precious and wonderful of all material substances, the cerebral pulp, by which the organs of sense perceive; the will

• Vol. i. p. 286.

+ Ibid. p. 185.