

CHAPTER IV.

THE CARBONIFEROUS FLORA—CULMINATION OF THE ACROGENS—FORMATION OF COAL.

ASCENDING from the Erian to the Carboniferous system, so called because it contains the greatest deposits of anthracite and bituminous coal, we are still within the limits of the Palæozoic period. We are still within the reign of the gigantic club-mosses, cordaites, and taxine pines. At the close of the Erian there had been over the whole northern hemisphere great changes of level, accompanied by active volcanic phenomena, and under these influences the land flora seems to have much diminished. At length all the old Erian species had become extinct, and their place was supplied by a meagre group of lycopods, ferns, and pines of different species from those of the preceding Erian. This is the flora of the Lower Carboniferous series, the Tweedian of England, the Horton series of Nova Scotia, the lower coal-measures of Virginia, the culm of Germany. But the land again subsided, and the period of the marine limestone of the Lower Carboniferous was introduced. In this the older flora disappeared, and when the land emerged we find it covered with the rich flora of the coal-formation proper, in which the great tribes of the lycopods and cordaites attained their maxima, and the ferns were continued as before, though under new generic and specific forms.