The flora of the older Permian rocks presents many points of resemblance to the Carboniferous.²⁴⁶ According to Grand' Eury, upward of 50 species of plants are common to the two floras. Among the forms which rise into the Permian rocks and disappear there, are Calamites Suckowii, C. approximatus, Asterophyllites equisetiformis, A. rigidus, Pecopteris elegans, Odontopteris Schlotheimii, Sigillaria, Brardii (and others), Stigmaria ficoides, Cordaites borassifolius, etc. Others, which are mainly Permian, are yet found in the highest coal-beds of France, e.g. Calamites gigas, Calamodendron striatum, Arthropitus ezonata, Tæniopteris abnormis, Walchia piniformis, etc. But the Permian flora has some distinctive characters; such as the variety and quantity of the ferns united under the genus Callipteris, which do not occur in the Coal-measures, the profusion of treeferns (Psaronius, of which 24 species are described by Goppert, Protopteris, Caulopteris, etc.) of Equisetites, and of the conifers Walchia piniformis and W. filiciformis, and the occurrence of species of Gingko. The most characteristic plants throughout the German Permian groups are Odontopteris obtusiloba, Callipteris conferta, Calamites gigas, and Walchia piniformis. The last representatives of the ancient tribes of the lepidodendra, sigillarioids, and calamites are found in the Permian system. Cycads now make their appearance and increase in importance in the succeeding geological periods. Among their Permian forms are the genera Pterophyllum and Medullosa. In extra-European Permian areas a commingling of Palæozoic and Mesozoic types of vegetation has been observed, forms of Voltzia, Pterophyllum, and Glossopteris being there prominent.

²⁴⁶ See Göppert's "Die Fossile Flora der Permischen Formation," Cassel, 1864-65.