

the four recent species of *Araucaria* at present known, one is found on the east coast of New Holland, another in Norfolk Island, a third in Brazil, and the fourth in Chili. (Foss. Flora, vol. ii. p. 21.)

Whatever result may follow from future investigations, our present information shows that the largest and most perfect fossil Coniferæ, which have been as yet sufficiently examined from the Coal formation and the Lias, are referrible either to the genus *Pinus*, or *Araucaria*,* and that both these modifications of the existing Family of Coniferæ date their commencement from that very ancient period, when the Carboniferous strata of the Transition formation were deposited.

* Mr. Nicol states that in fossil woods from the Whitby Lias, when concentric layers are distinctly marked on their transverse section, (Pl. 56^a, Fig. 2, *a, a.*) the longitudinal sections have also the structure of *Pinus* (Pl. 56^a, Fig. 1.); but when the transverse section exhibits no distinct annual layers, (Pl. 56^a, Fig. 4.) or has them but slightly indicated, (Pl. 56^a, Fig. 6 *a*) the longitudinal section has the characters of *Araucaria*. (Pl. 56^a, Fig. 3, 5.) So also those Coniferæ of the great Coal formation of Edinburgh and Newcastle, which exhibit the structure of *Araucaria* in their longitudinal section, have no distinct concentric layers; whilst in the fossil Coniferæ from the New Holland and Nova Scotia Coal field, both longitudinal and transverse sections agree with those of the recent tribe of *Pinus*.

Mr. Witham also observes that the Coniferæ of the Coal formation, and mountain limestone group, have few and slight appearances of the concentric lines, by which the annual layers of the wood are separated, which is also frequently the case with the Trees of our present tropical regions, and from this circumstance conjectures that, at the epochs of these formations, the changes of season, as to temperature at least were not abrupt.