

humid atmosphere, and, we have no reason to doubt, a brilliant sun, promoted the growth of a luxuriant vegetation, such as some of the tropical islands, with their burning temperature and maritime climate, can only give us an idea of, while it recalls some of the Jurassic types of vegetation. The elegant Voltzias of the Trias had disappeared, but the Horse-tails (*Equiseta*) remained, whose slender and delicate stems rose erect in the air with their graceful panicles; the gigantic rushes also remained; and though the tree-ferns had lost their enormous dimensions of the Carboniferous age, they still preserved their fine and delicately-cut leaves.

Alongside these vegetable families, which passed upwards from the preceding age, an entire family—the Cycads (Fig. 72, p. 168)—appear for the first time. They soon became numerous in genera, such as *Zamites*, *Pterophyllum* (*Williamsonia*), and *Nilsonia*. Among the species which characterise this age, we may cite the following, arranging them in families:—

FERNS.	CYCADS.	CONIFERS.
<i>Odontopteris cycadea.</i>	<i>Zamites distans.</i>	<i>Taxodites.</i>
<i>Taumopteris Munsteri.</i>	<i>Zamites heterophyllum.</i>	<i>Pinites.</i>
<i>Camptopteris crenata.</i>	<i>Zamites gracilis.</i>	
	<i>Pterophyllum dubium.</i>	
	<i>Nilsonia contigua.</i>	
	<i>Nilsonia elegantissima.</i>	
	<i>Nilsonia Sternbergii.</i>	

The *Zamites* seem to be forerunners of the Palms, which make their appearance in the following epoch; they were trees of elegant appearance, closely resembling the existing *Zamias*, which are trees of tropical America, and especially of the West India Islands; they were so numerous in species and in individuals that they seem to have formed, of themselves alone, one half of the forests during the period which engages our attention. The number of their fossilised species exceeds that of the living species. The trunk of the *Zamites*, simple and covered with scars left by the old leaves, supports a thick crown of leaves more than six feet in length, disposed in fan-like shape, arising from a common centre.

The *Pterophyllum* (*Williamsonia*), formed great trees, of considerable elevation, and covered with large pinnated leaves from top to bottom. Their leaves, thin and membranous, were furnished with leaflets truncated at the summit and traversed by fine nervures, not convergent, but abutting on the terminal truncated edge.

The *Nilsonia*, finally, were Cycadeaceæ resembling the Ptero-