

A Morphological Comparison of Some Jurassic Plant Fossils from Sri Lanka and Other Parts of the World with Type Specimens of the Natural History Museum, U.K.

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The present study compares the features of some plant fossils found in the Jurassic beds of Sri Lanka, Australia, India, Russia and United Kingdom with the features of the original "type specimens" kept at the Natural History Museum, United Kingdom. This paper describes the morphological features and the observed evidences of the species of Cycadophyta, a common plant that prevailed during the Jurassic period.

Sedimentary rock samples with fossil imprints were collected and identified in the field for laboratory studies. The surface structures were studied under reflected light and all specimens were photographed to reveal surface details. Then morphological features were compared and their features are listed below in the standard format accepted internationally.

Classification: Division: Cycadophyta, Order: Bennettitales, Species: *Ptilophyllum acutifolium* of Morris (1840), Material Examined: 8 specimens.

Feature Description: Comparison with the type-specimen of Morris, *Ptilophyllum acutifolium* found in 1840 in the British Museum, confirms that the pinnae of *Ptilophyllum* found in all localities are characterized by their attachment to the upper face of the rachis. This is nearly completely covered and pinna attachment is sub-opposite. The upper angles of the pinna are mostly rounded and in a few samples it is auriculate. The lower angle of the base is slightly rounded and infrequently hidden by the imbrications of the adjoining pinna. Some of the pinna attached to the rachis along the whole width of the base but the upper angle is free. The veins are parallel, sub parallel or oblique to the lamina. The pinnae are linear or lanceolate and can vary in length, width and the shape of the apex. Most of the pinnae are straight or more or less falcate and the apices are sharply pointed. Pinnae are sessile, and margins are entire. In sample F, pinnae are smaller compared to those of the type specimen.

This comparison of the features of Jurassic plants from Sri Lanka, India, Australia, Russia, and United Kingdom with type-specimens reveals that they are of the same species. This confirms their unique and similar palaeo-environment prior to fragmentation. Since there are no previous detailed morphological descriptions given for the Sri Lankan plant fossils comparing the features of type specimens, we consider that above descriptions provide specific details of Jurassic Sri Lankan Cycadophyta for future plant fossil investigators.

Acknowledgement: Director, Natural History Museum, United Kingdom.