

Date

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CORE CONCEPT OF PTERIDOPHYTE
Calamites II

with the secondary wood
about 6 cm thick and the pith also
also a few centimeter.

A few other types of
stems are also found within this
genus. Thus Protocalamites a
'stem genus' from the lower
Carboniferous shows the primary
xylem exarch instead of endarch.
Roots of Calamites are usually
placed in the form of genus
Asteroxylon. These adventitious
roots do not show nodes and
internodes. The primary xylem
is exarch and carinal canals
are absent. It is di- to poly-
arch, phloem masses alternating
with protoxylem patches. Cambial
growth was limited. The endo-

dermis is 2-layered as in Equisetum. The pith is small and not hollow. The cortex usually, had large air spaces as in aquatic plants.

Leaves of Calamites are placed in a number of form genera, Annularia Asterophyllites etc. Shows many species. There are 8 to 32 linear to spatulate leaves about 5 mm to a few centimeters in length, in a whorl.

Several types of strobilli of Calamites are known and these have been placed in different form genera. The strobilli were borne on special fertile shoots at the nodes in verticils of two or more in the axils of bracts. Generally 4 sporangia founds on one sporophore. These are Homosporous. But some species was Heterosporous also es - C'cash earn.

