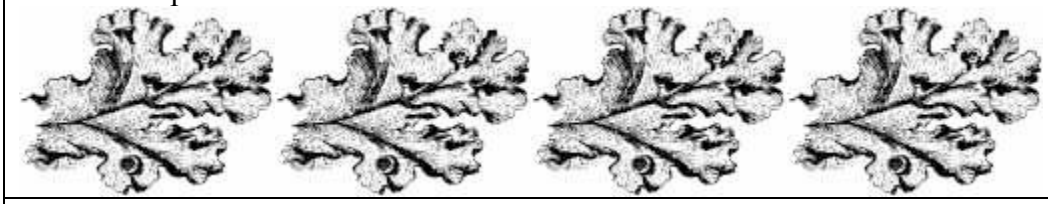
Evolution of Plants

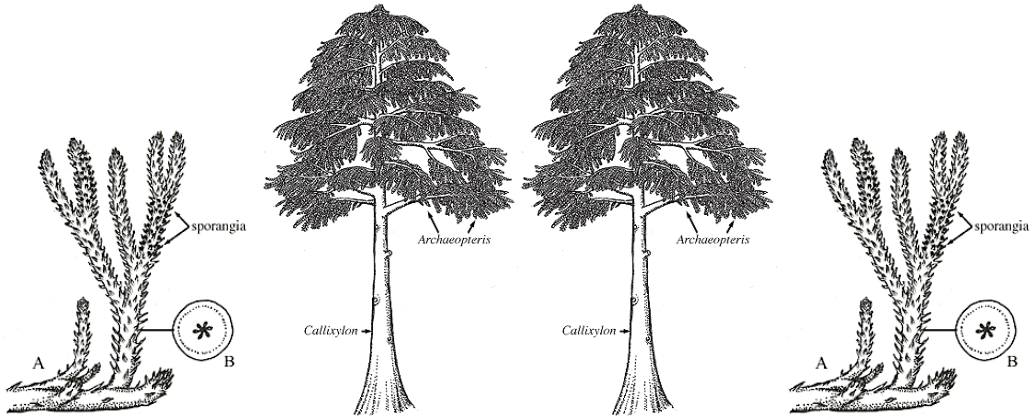
Cambrian: small, soft-bodied plants with simple branching and no differentiated parts. Green algae in oceans, no good evidence of land plants
Ordovician: First terrestrial plants - non-vascular plants that reproduced with spores. Because they could not conduct water, they must have lived only in wet environments.
Silurian: First vascular plants that could conduct water through tubes, bit no differentiation into leaves, stems and roots. Photosynthesized and had stomata for respiration on every surface.
Devonian: First recognizable soils, so evolution of soil bacteria. Many plants were non vascular, many had no differentiation of seeds, leaves and stems. Early Devonian plants were small (most less than a meter) but had leaves, stems and roots. By Late Devonian there were many kinds of land plants forming forests, including some giant trees. Seed bearing plants became common. Global CO_2 levels drop with the explosion of plant life.
Carboniferous: Plants were similar to Devonian, with addition of horse-tails, club mosses, and scale tree. Ferns and tree ferns are very similar to modern plants. Many swamp-loving trees (*Lepidodendron, Sigillaria*) and primitive conifers appear.
Permian: Advanced conifers dominated as climate dried. Cycads and ginkgos appear. There were large forests in some regions.
Triassic: Seed plants dominated the land. Cycads, ginkgos, and conifers were important plants. The seed fern Glossopteris was widespread in tropical regions.
Jurassic: Climate became wetter with widespread jungles. Conifers dominated. Cycads, ginkgos and ferns remained important. Flowering plants appeared but were a minor part of the flora.
Cretaceous: Angiosperms became widespread, to become the dominant plants by the end of the Cretaceous. Many modern trees appear at this time. Conifers continued in colder environments.
Cenozoic: Grasses evolved and created the savannah ecosystem. Conifer forests spread in colder climates, and angiosperm forests in temperate and tropical climates.

Ordovician plants

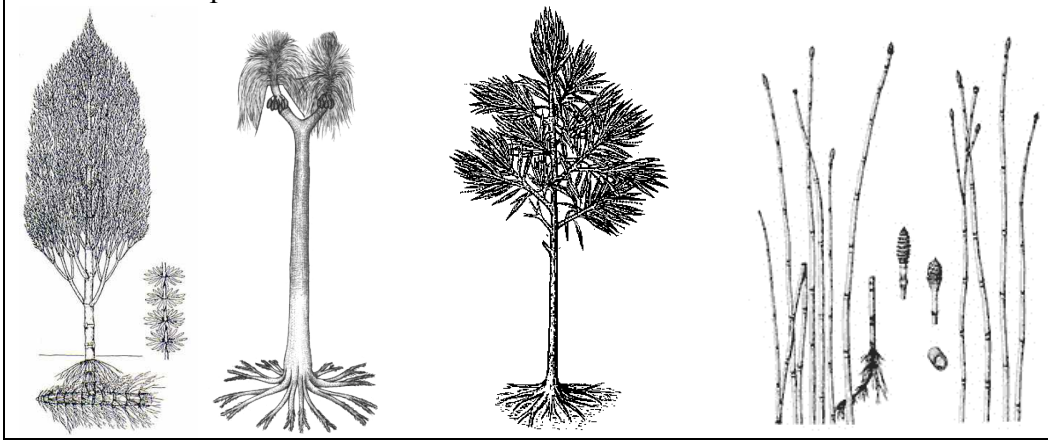


Silurian plants

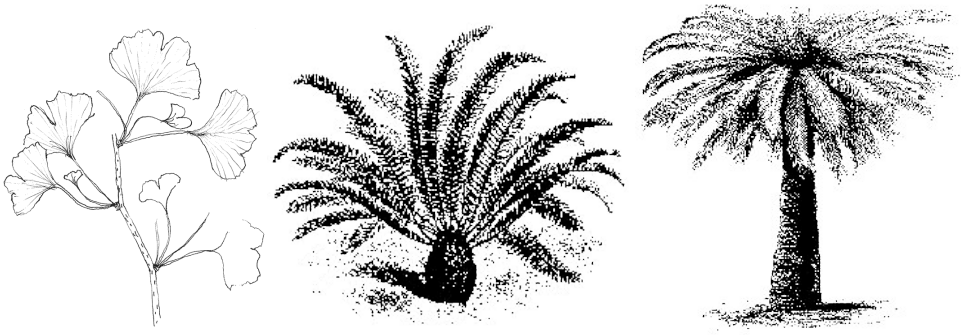
Devonian plants



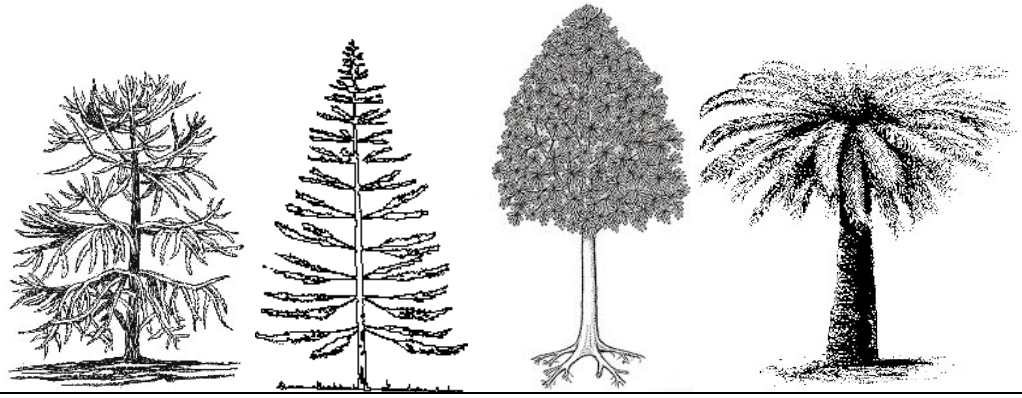
Carboniferous plants



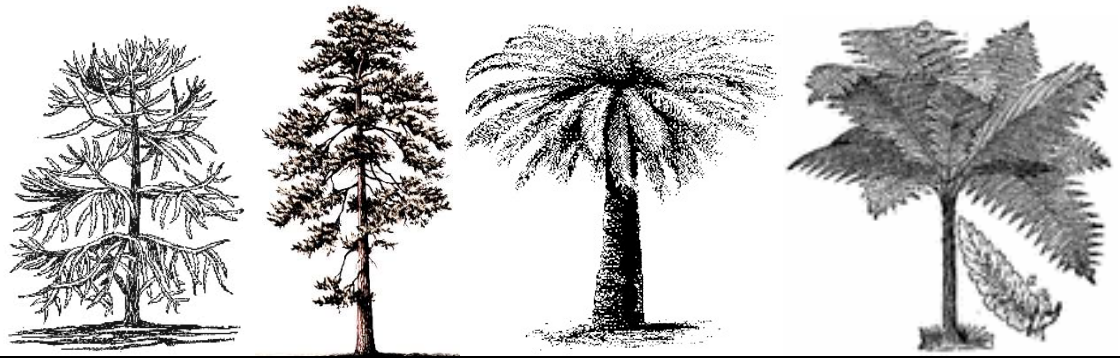
Permian: conifers, ginkgo, cycads



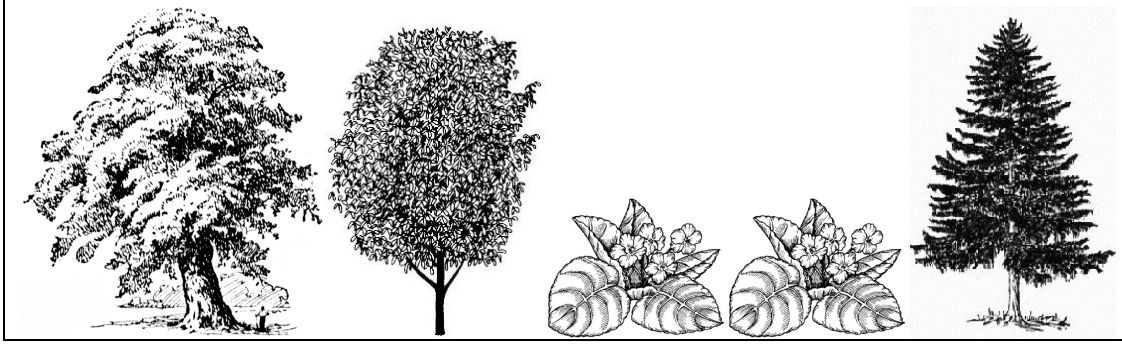
Triassic:



Jurassic



Cretaceous



Cenozoic