

6/21/2004 What is the tallest tree in the Tropical Dome? - TROPICAL DOME

The kapok tree (*Ceiba pentandra*), near the center of the Tropical Dome, towers above the other plants. Its natural home is the "emergent" layer of the tropical rainforest, where it gets far more sunlight than trees in the thick "canopy" layer below. The kapok tree is native to the American tropics and West Africa, but is now found in tropical forests around the world. It can grow as much as 10 feet in a year, reaching a height of 150 feet or more with a base diameter of 9 feet. The wide base is due to its buttress roots that are needed to support the tree. The below ground roots are quite shallow, which is typical of rainforest trees.

The ancient Maya people regarded it as a sacred tree and believed that the souls of the dead could climb into heaven on the branches of a mythical kapok tree. The kapok tree is sometimes called the silk-cotton tree because its seedpods are filled with silky hairs or fibers that help carry the seeds to new growing sites. The pods burst open as they mature as milkweed pods do. The fibers are used as stuffing material in upholstered furniture, sleeping bags, and life jackets.

Kapok trees are in the same plant family (Bombacaceae) as the balsa tree, famous for its lightweight wood used for model airplanes. Kapok tree wood is also soft, and the long trunk of the kapok tree is sometimes used for dugout canoes and carvings. Sharp conical (cone-shaped) spines protect the smooth gray bark.

Kapok trees have large hand-shaped leaves with 5 to 8 leaflets that are shed during the dry season. During the leafless period, they produce large showy flowers that open at night and are pollinated by bats. When the leaves are absent, bats have an easier time finding the flowers, and seeds can be dispersed more easily. The towering kapok trees provide a home for a large variety of birds, insects, frogs, and other animals. The branches support many plants (epiphytes) and shade the understory trees. Lynne Cherry's book for children, "The Great Kapok Tree," describes its importance with beautiful, colorful drawings.