

6/21/2006 Cycads: Popular Dinosaur Food? - TROPICAL DOME

Is it a palm tree? Is it a fern? Cycads can be confused for both because their evergreen leaves are large and compound (many long leaflets along a central leaf stem). In fact, the horticultural "Sago palm" is actually a cycad. As cycads grow, a vertical trunk is formed with a crown of leaves. If a dinosaur were to time-travel to 2006 looking for something to eat, it would be happy to find cycads, which were abundant in the Jurassic Era. Fossil cycads from millions of years ago look almost identical to cycads today. Humans also use cycads for food. Cycad seeds may be eaten raw or roasted. The starchy pith of the cycad trunks can be processed into "sago starch" and used as flour. Because cycads cannot tolerate cold weather, today they are found only in tropical and subtropical areas of the world.

Cycads are gymnosperms, which puts them in the same group as conifers and ginkgos. Cycad roots contain cyanobacteria (formerly called bluegreen algae) that fix atmospheric nitrogen into a form the plant can use in exchange for food from the cycad. Cycads have cones instead of flowers. They are dioecious, a word derived from the Greek for "two houses." The large cones produced in the center of a cycad plant either produce pollen or ovules. The pollen from a cone on a male plant must reach a cone on a female plant for seeds to form.

Cycad seeds do not go dormant. In soil, they begin to grow immediately. If not planted right away, cycad seeds must be kept moist, or they will die. Cycads also produce "offsets," sometimes called "pups." Offsets are small plants identical to the mother plant, so they will be either male or female depending on the sex of the parent.

Next time you visit the Tropical Dome and find yourself admiring the palms and ferns, look more closely and see if you are looking at a cycad instead.

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