

The Okeechobee Gourd

By Libby Hopkins



The Okeechobee Gourd, or *Cucurbita okeechobeensis*, as it's known by its scientific name is a species of gourd in the family Cucurbitaceae, native to Mexico and the United States. There are two subspecies; one is endemic to Florida, primarily in the region around Lake Okeechobee, the other to the State of Veracruz in eastern Mexico.

Once abundant, it has state and federal listing as an endangered species. One of its peculiarities is the yellow corolla not so common in other *Cucurbita* species.

A climbing vine, the Okeechobee Gourd is a wetland gourd, growing fairly commonly as a vine in the bottomlands of the St. John's River and the southern shore of Lake Okeechobee. It grew and reproduced in perfect sync with the natural hydrologic cycle of its habitat.

Over the summer, the heart-shaped leaves and cream-colored flowers covered the pond apple trees, which were natural trellises for wild gourds. The vines continued to climb during the wet season.

Protected above the rising water level, the flowers developed into orange-sized gourds, light green with faint stripes. These gourds contained the seeds for future generations. The vines dried, and the gourds fell to the water below.

The gourds floated on the receding waters of the winter dry season until they came to rest on exposed soil. And the cycle started again.

Okeechobee gourd is usually associated with pond apple trees on which it climbs and alligator nests which provide suitably elevated soil berms in full sun, with no competition from other plants.

Pieces of gourds have been found in rabbit nests, suggesting that the rabbits feed on and possibly disperse the seeds. The Okeechobee Gourd is dependent on the fluctuating water levels of Lake Okeechobee, with seeds germinating and sprouting during the low water levels.

Flowers open at dawn, but specific pollinators haven't been identified. Likely pollinators include bees, flies, and squash beetles. Preliminary information indicates that pollination may be a problem for the species, especially in smaller populations. In one collection, hand-pollination is necessary to ensure a viable seed-set.

The fruit of this species, a gourd, is very bitter and potentially poisonous, and so is not used for food. While this species of gourd is not edible, it is particularly important to study and maintain it in the wild, as it is resistant to many of the diseases that affect economically important crops, including the cucumber mosaic virus, powdery mildew, and squash mosaic virus.

Interestingly, the Okeechobee Gourd's seeds are edible and nutritious, and the flesh of the gourd can be used as a soap. It is also thought that the outer part of the gourd was historically used as a ball, rattle, or ceremonial cup.

As of 1930, at least 95 percent of the pond apple forests where this species once commonly occurred had been destroyed for agriculture and water-level regulation. This species is now found only in two disjunctive populations, threatened with continued water-level regulation practices and invasion of its habitat by non-native invasive species.

