

Strangler Fig

Ficus aurea

The Strangler Fig is a native of South Florida and the West Indies, growing primarily in tropical hardwood forests. It can be a large tree, 50-60 feet in height, and it is a unique plant.

Strangler Figs begin as epiphytes, usually growing on another tree where birds or other animals have deposited seeds through their droppings. At Corkscrew, hosts are typically Cabbage Palms and Bald Cypress.

The seeds are sticky and attach to the tree. After germination, the fast-growing fig sends down aerial roots which reach the ground and establish a soil-based root system. As the roots enlarge, the fig becomes self-supporting.



A Prothonotary Warbler eats a fig above the Box 5 bench at the north lake. Figs are favorite foods of Red-bellied and Pileated Woodpeckers.

Figs can grow from the ground as normal trees, but the stand-alone tree does not usually grow very tall.

On some host trees where the fig begins relatively low, we can see where the tree begins to grow up and the roots begin to grow down.

The Strangler Fig does not strangle. If it begins high enough, it will grow above

the top of the host tree and develop a dense canopy which shades out everything below. It may eventually kill the host tree, but not by strangulation.

However, we are at the far northern end of the fig's range. Because the fig is a tropical tree, it is not cold-tolerant, so when temperatures in our late December and early January mornings drop to the low 30's or less, the cold retards the fig's growth. Consequently, no dense canopy ever develops to deprive our host trees of needed sunlight.



Reproduction is what makes the Strangler Fig unique. The fruit is actually a hollow, globular receptacle with hundreds of small fleshy flowers facing each other on the inside. The figs are pollinated by a tiny gall wasp that enters the receptacle through a small opening. Each flower inside the receptacle then produces a tiny fruit containing seeds.

Each one of the more than 700 fig species in the world is pollinated by only one, or rarely two, species of fig gall wasp. The species of tiny gall wasp that pollinates our Florida Strangler Figs is *Anidarnes bicolor*. The mutualism between figs and the wasps that pollinate them is one of the most spectacular examples of coevolution.

The fruits (figs) grow in clusters on short stems that grow directly from the tree trunk and branches. Each fig has a tiny hole, a bract-lined entry pore, that is just large enough for the female gall wasp, full of eggs, to enter.

As she squeezes through the entrance, she loses both of her wings and is unable to leave. She deposits the pollen that she has carried and lays her eggs in the stigma of the flowers inside the fig fruit. Then she dies, and the hole in the fig wall closes.

After a few days, the young male wasps, which develop faster than the females, hatch, chew open the eggs of the females, and mate with them. The males then chew a hole in the wall of the fig fruit and die.

On the way out, the winged females are tagged with pollen. The new female



wasps, full of eggs now, can only make one flight with their delicate wings. In that one flight, the female must not only find the right species of fig, but a fruit in the right stage of development. If she fails, she will not have the strength to make another flight.

It is essential for the fig, too, that she succeed. The tree aborts unpollinated fruit.

If she happens upon the correct species of fig tree with the right characteristics, she will

reenact the process of her mother to ensure new generations of fig gall wasps and Strangler Figs.

Strangler Fig Trivia

- Broken twigs exude a milky sap, which may cause a skin reaction in some people.
- Strangler Figs are in the family *Moraceae* (mulberry family).
- The Strangler Fig is the host larval plant for the Ruddy Daggerwing butterfly, whose caterpillars can be seen eating fig leaves in the late summer and early fall, *below*.



References:

FLORIDATA (www.floridata.com)
Florida Entomologist, Sept. 1999, p. 54