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Costa Rican Natrual History
January 30th 2023
Species Report #1

Common Name: **Strangler Fig/ Ficus Trees**
Scientific name: *Ficus aurea*
Family: Moraceae

Description

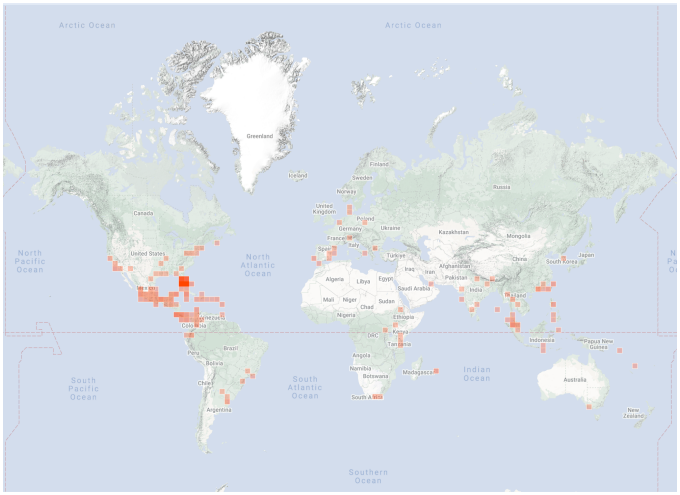
The Ficus Tree or Strangler Fig is a hemi-epiphyte that starts its seed germination in the canopy of a host tree. It is in the epiphyte stage until its roots connect with the ground and is considered a hemi-epiphyte. It then strangles the host tree, typically leading to the host tree's demise. The Strangler fig grows up to 30 m tall and each tree bears male and female flowers. The size and shape of the leaf varies. The figs are the seeds of the tree, rather inside the fig is where the flowers germinate. Figs are green when unripe and turning yellow as they ripen.

How I distinguished the strangler tree was to look for a thick woody vine like structures that form a tree shape. Typically I could see a host tree inside the thick woody vine structures, though sometimes the strangler tree was hollow in places or through the base (maybe the host tree already decayed) and it looked like interwoven thick woody vines. I didn't see any figs yet, maybe they had not ripened? Early stages of a strangler tree were a bit hard to tell as they looked similar to liana vines- maybe the strangler tree vines were thicker. Once the young strangler tree touched the ground I could more easily tell them apart from other species due to their interesting network of interwoven woody vine-like structures.

Engraving of *Ficus maxima indica*after a drawing by Hans Sloane, published 1725

Distribution and Habitat

The *Ficus aurea* is found in Florida, the northern and western Caribbean, southern Mexico, and Central America south to Panama. These Hemi-epiphytes are located at tropical locations in cloud or mangrove forests. The species does best in full sun to shade and likes wet soils. They are highly drought tolerant and they can endure inundation of brackish water.



Ficus aurea distribution (INatrualist)

Natural history

Ficus trees have formed a mutualistic relationship with fig wasps, its how the flowers are pollinated and where the fig wasps reproduce. Figs flower and fruit asynchronously, which is pertinent to the fig wasps. The reproduction process could not happen without the efforts of the fig wasp, specifically, the gall wasp. The figs have a small entrance to where the seeds are located. The hole is big enough for the female wasp to enter, though once she does so she loses her wings and can not exit as the hole closes on itself. Further she deposits pollen and lays her eggs on the stigma of the flowers of the fig seeds. A few days later the baby wasps are born and eventually the male wasps- born without wings and cannot leave- bore a hole in the fig fruit. The female gall wasps fly out of the fruit and go on to spread pollen to other fig fruit. Distribution occurs when the seeds inside the fig are pollinated and the fruit falls. Typically figs are eaten by forest creatures and the dung carrying the pollinated seeds are planted far from the mother tree. The parasitic strangler tree uses its thick fig foliage in the canopy to help succeed in taking over the host tree robbing it of sunlight. Though the strangler tree also has the potential to help the host tree it strangles in storm events from decreasing the chances of the host getting uprooted. The strangler tree is a keystone species as it provides shelter for many different species and can be used for medicines. It is also a keystone fruit resource as they provide food to frugivores of the tropics, like: birds, coatis, rodents, bats, etc. Figs are also harvested by humans to eat and for

medicine usage. The strangler tree, like its relative the banyan tree, also have religious and spiritual connotations- it's said Buddah once meditated under one.

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