

Alligator Flag

Thalia geniculata

Alligator Flag is a large upright plant, growing up to ten feet or more in height. It spreads via short, thick underground rhizomes to form large clumps. It is an emergent plant: the rhizomes are under water buried in the peat/mud, the base of the plant is submerged, and the leaves have their bases under the water surface, but the majority of the plant grows above the water surface.

It grows in swamps, marshes, wet ditches, and the margins of streams or lakes, usually in full sun, and often in a region with a pronounced dry season. It is native to the Southeastern United States, mainly Florida and Louisiana, plus Mexico, Central America, and northern South America.

It has many common names: Alligator Flag, Fire Flag, Arrowroot, Bent Alligator Flag, Giant Water Canna, and Greater Thalia just to name a few. Alligator Flag and Fire Flag are the most frequently used common names.

This was a fairly important food plant for the Seminoles. They ate the fresh roots, the flowers, rhizomes, and stem bases. They used the large leaves (up to two feet long and over half a foot wide) to wrap food for cooking—according to Dan Austin (2009), “Cornbread dough was mixed with meat and rendered fat, and then boiled in the leaf, like a tamale, but the Miccosukee call it paluuee.”

Large simple leaves on long stalks are among the plant’s most notable features. The leaves are broadly lance-shaped, up to eight inches wide and almost three feet long. Although the plant grows in water, the leaves are so large that they would lose too much moisture through transpiration, so they have a waxy coating to hold moisture in; it feels like wax paper to the touch.

Flowers, pollinated by bees, butterflies, and hummingbirds, bloom from summer to fall and are very unusual.

One reason is that the flowers are paired or twinned. That is, what appears to be one flower at the top of a stalk is actually two, each one the mirror image of the other.

Blooms are pale to dark purple with yellowish centers and are made up three partially fused petals and a couple of petal-like structures called staminodes.

What is really unique is their awesome and explosive pollination mechanism. The drawing in the next column will help with some of the terminology.

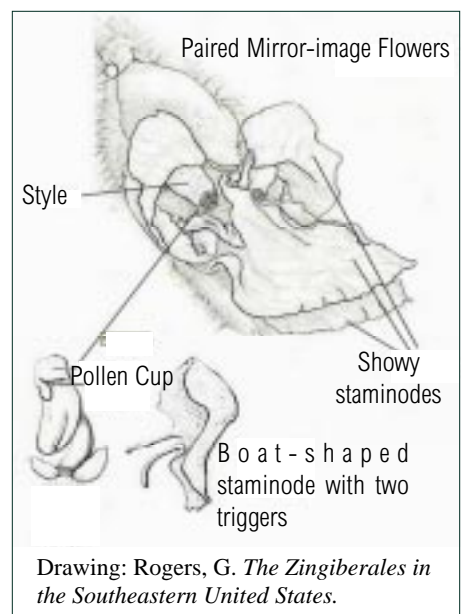
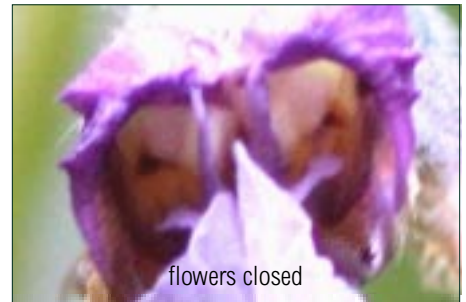
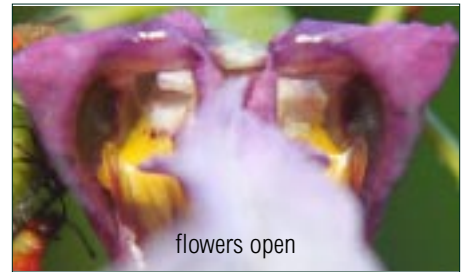
The pollen-bearing bits of the plant (the style) are buried inside the showy “flowery” parts, which are not petals in this plant, but stamens. Each of these “flowers” has two little “triggers” rising from its side and wrapping over the cocked and ready style so that when a bee or hummingbird or other potential pollinator brushes up against one, the trigger releases the style, which pops up and curls inward in a split second, similar to the workings of a rat trap.

When the style snaps up and inward, first the stigma scoop scrapes across the insect’s tummy removing any pollen it has brought from a different flower. A nanosecond later in the same snap, the pollen-bearing cup brushes new pollen onto the pollinator.

The sudden snap probably slams the door on the unfulfilled bee and closes the entrance to the flower which has no further need for any visitation.

Alligator Flag is the host plant for the Brazilian Skipper. Single gray eggs are laid on the leaves. After emerging, Brazilian Skipper caterpillars make shelters out of leaves by folding the leaves over and securing them with silk. The caterpillars emerge from their shelters at night to feed, often causing severe defoliation. They do have robust eating habits.

A profile of Brazilian Skippers was published in the December, 2011, Corkscrew newsletter.



Drawing: Rogers, G. *The Zingiberales in the Southeastern United States*.