# In Praise of Pitcher Plants

by Jay Lechtman

They're perfect wetland or pond edge plants. They're incredibly showy, with tall, stately, upright trumpet-shaped foliage often colored yellow, copper or gold - many heavily veined in red. Their flowers are large and voluptuously beautiful, with pendulous petals in shades of cream, pink, yellow and red. Their unique seedpods are carried on tall stems like tropical drink umbrellas until fall. They're natives to our half of the country, non-aggressive, and perennials, arising each Spring from Iris-like rhizomes. They grow readily from seed, and many are cold-hardy in our area with only modest protection.

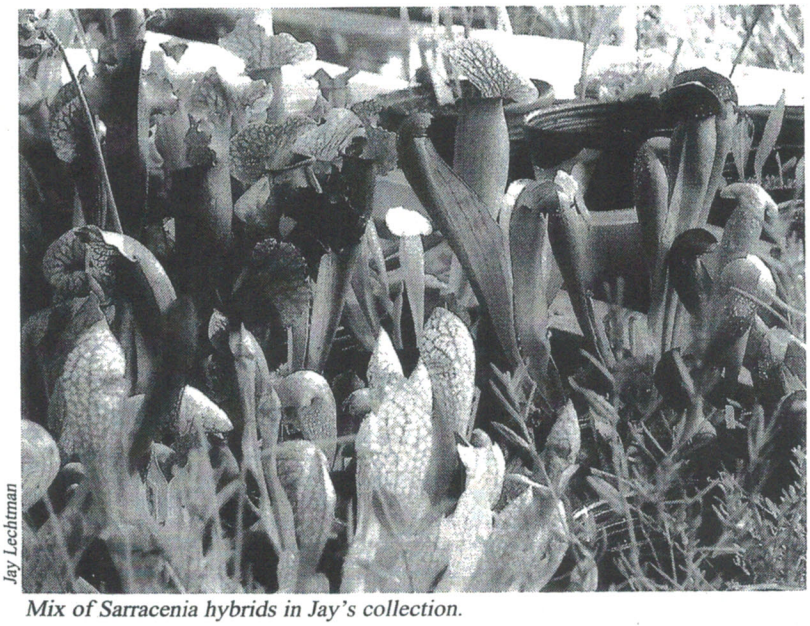
And their beauty belies their gothic (and most fascinating) secret. They're not toxic, or even harmful - at all - to humans. But they're killers nonetheless.

Pitcher plants are carnivorous, like the more popularly known (and grown) Venus Flytrap (*Dionaea muscipula*). They evolved in acidic, nutrient-poor soils where nitrogen and trace minerals couldn't readily be found in the ground, so it had to be caught on the wing ... or the leg.

No, they won't eat your toddler, or your cat. But North American pitcher plants (genus *Sarracenia*) will devour more than their weight in flying and crawling insects each spring and summer - ants and flies, hornets and wasps.

If you grow pitcher plants solely as living exterminators, however, prepare yourself for possible disappointment. They attract far more insects than they ultimately consume. That being said, however, my neighbor has remarked that his yard is considerably freer of annoying yellowjackets than before my family—and my plants—moved in next door. (Likewise, with my collection sited away from our deck, we enjoy the same effect.).

Instead, grow them for their beauty. Because it is the leaves of pitcher plants that must attract insects, many are as colorful as the flowers of their non-carnivorous compatriots.



Jay Lechtman

*Mix of Sarracenia hybrids in Jay's collection.*

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*S. flava in Sussex County, VA.*

In fact, this often leads to a common misconception about carnivores - that the leaves are the plant's flowers. While the flowers of many plant species do capture insects for pollination—orchids most famously among them—they invariably let them go again. For if Darwin is to be believed, it makes no sense to attract an insect to receive one's pollen, if one isn't prepared to let that same insect take it to another flower. When a hapless fly is attracted to the floral-looking leaves of a pitcher plant, however, it is often a one-way trip.

Yet pitcher plants do have flowers - quite striking flowers, actually, with a shape unique to nature and petals colored a palette of creams and yellows and pinks and reds. Interestingly, pitcher plants have evolved a strategy for pollination that recognizes the potential competition with their leaves. If you eat all of the insects that fly by, you won't pass on your genes to the next generation. So *Sarracenia* flowers often appear well before the lethal pitchers are fully-formed, and many are carried on tall stalks well away from their trapping

foliage. Five silky petals persist for several weeks, but leathery sepals and a unique umbrella-shaped pistil - in colors of green, rust or burgundy - persist until the fall.

## The Species

There are nine *Sarracenia* species, and numerous subspecies, varieties and forms. Most are natives of the Southeastern United States (from southern Virginia to East Texas) although *S. purpurea*, the purple pitcher plant, ranges from far northern Canada to our own Gulf Coast. Generally they can be divided into two categories: The upright trumpet pitchers and the low-growing rosette pitchers.

Trumpet pitchers can be tall and stately, such as the yellow pitcher plant (*S. flava*) the white-top pitcher plant (*S. leucophylla*), or the pale pitcher plant (*S. alata*), often stretching to 36" in height or taller. Others are short and dainty, such as the sweet pitcher plant (*S. rubra*) and the hooded pitcher plant (*S. minor*). The green pitcher plant (*S. oreophila*) is fairly rare in cultivation and even rarer in the wild. It is one of three pitcher plants found on the U.S. Endangered Species List (the other two are subspecies of the sweet pitcher plant: *S. rubra jonesi*, the mountain sweet pitcher plant; and *S. rubra alabamensis*, the Alabama canebrake pitcher plant).

Jay Lechtman

*One of few sites of Sussex County, VA where pitcher plants still exist.*

The most common low-grower, the purple pitcher plant (*S. purpurea*), forms rosettes of vase-shaped leaves that fill with rainwater in order to drown prey. *S. rosea* is a form of the purple pitcher plant found along the Gulf Coast of Florida and Alabama, and the parrot pitcher plant (*S. psittacina*) is a small, rosette-forming plant whose leaves form beaks like a parrot.

## Hybrids

Pitcher plants are easily hybridized and are one of the few genera of plants that exhibit partial dominance. Cross two plants and you will get offspring that are visually half way between their parents. Pitcher plant hybrids can be beautiful and bizarre, and are typically far more vigorous growers than their species parents. Many fancy hybrids have been named as cultivars and are available through specialty nurseries - 'Judith Hindle,' 'Dixie Lace,' and 'Mardi Gras' are among the most popular.

## Why Do They Do It?

Pitcher plants and other carnivores typically grow in wet sandy or peaty soil low in nitrogen and other nutrients necessary for plant survival. In our own gardens we can amend poor soil with fertilizer, but in nature some plants learned how to catch their own fertilizer, by absorbing it from the bodies of the insects and other small animals they catch and digest.

Jay Lechtman

*Lunch arrives in Green Swamp Preserve, NC.*

Jay Lechtman

*S. flava.*

## Myths

Pitcher plants don't bite. They don't even move. These plants are passive predators, using slippery pitfalls to catch their prey. Many carnivores can move, albeit slowly, and a few, such as the Venus flytrap and the largely aquatic bladderworts, can move quite quickly. None, however are harmful to humans.

Pitcher plants aren't exotic or delicate tropicals. Most thrive in full sun outdoors in our area. Oh, and by the way? Venus Flytraps aren't from Venus, either. They're from the Carolinas.

## Cultivation

Pitcher plants are fussy about their cultural requirements, but once met, they are quite easy to grow. Really.

Pitcher plants thrive with the following:

Full sun: Four to six hours of sun a day at a minimum.

Pure water: Rain water, purified or distilled water. Pond water should be ok, as long as it isn't treated and hasn't been "fertillized" with excessive fish waste.

Wet feet: Plants should sit in an inch or two of water during the growing season.

Acid Soil: I grow my pitcher plants in a mix of 50 percent all-purpose sand (from my

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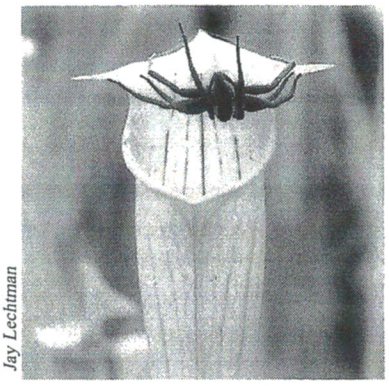
*S. flava in SC.*



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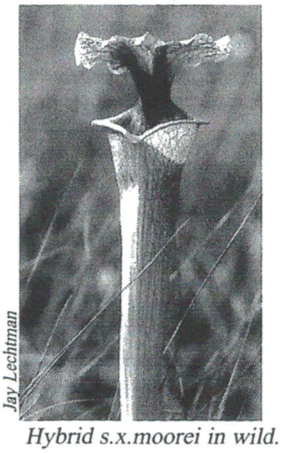
*S. alta -- spiders & tree frogs hang around to catch a free meal.*



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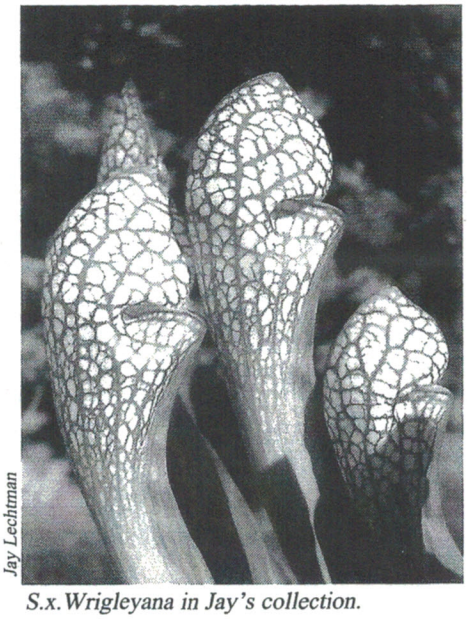
*Hybrid s.x.moorei in wild.*



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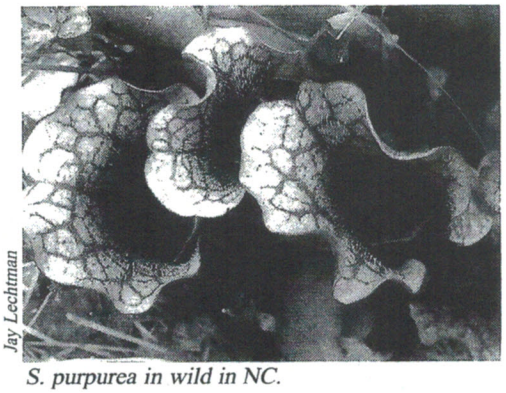
*S.x.Wrigleyana in Jay's collection.*



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*S. purpurea in wild in NC.*

local Lowes) and 50 percent sphagnum peat moss.

Winter Nap: All pitcher plants require at least a few months of dormancy. Mine typically sleep from Halloween to St. Patrick's Day (depending on the vagaries of our weather). All are hardy to our area with protection. *S. leucophylla* and *S. psittacina* tend to be the most sensitive to low temperatures, while *S. purpurea* is hardy to at least USDA Zone 3. While I overwinter my pitcher plants in a cold greenhouse, they have survived New Jersey winters with mulching. Light and airy mulch is key, to avoid the compaction and moisture that can cause rot. Evergreen boughs - or even needles - work well.

## Environmental Issues

Pitcher plants are rare in the wild, and growing rarer, as their swampy habitat is drained for development and agriculture. Only about three percent of pitcher plant habitat is thought to still exist in the states where it was once common, including Virginia and North Carolina in the mid-Atlantic. Many pitcher plants and other carnivores are now being tissue cultured and made available for sale, which should (hopefully) help reduce the pressure to collect the few remaining wild plants. You can help by buying only commercially-propagated plants and by never digging up one from the wild (if you can find one in the first place).

## So You Have To Have One

Where can you find a pitcher plant of your own?

A few local growers (myself included) and nurseries offer pitcher plants for sale. Karen Rexrode carries a few at her Windy Hill Plant Farm in Aldie, as does Sally Kurtz at Water Ways Nursery in Lovettsville, both in Virginia.

Several mail order nurseries specializing in native and unusual plants also carry pitcher plants, including Niche Gardens (www.nichegdn.com) and WE-DU Nurseries (www.we-du.com), both located in North Carolina.

Pitcher plants. They're stunningly beautiful. They're endlessly fascinating. And as insect season intensifies, I get a perverse joy watching at least some of my plants bite back.

*Jay Lechtman grows pitcher plants and other carnivores and bog plants (and sells a few) at his home in Ashburn, Virginia. He can be reached at writerguy67@aol.com.*