

## *Spigelia marilandica* – a Plant with Tropical Flair

The topic of tropical plants often conjures up lush images to gardeners. These images may include large and bold foliage or perhaps flowers with dramatic shapes or brilliant colors. When I first saw Indian Pink at Longwood Gardens many years ago, the bold red and yellow flowers gave the impression of a tropical plant, heralding from far warmer regions (as seen at right). Little did I know that this plant, botanically known as *Spigelia marilandica* was native to regions throughout central and southeastern North America and not the Caribbean!



*Spigelia* is a member of the Loganiaceae or Logania Family, which not surprisingly is a family found primarily in tropical regions. Its namesake is the genus *Logania* native to Australia and New Zealand. *Spigelia* contains about 60 species with the vast majority native to warmer regions throughout North and South America. *Spigelia* was named in 1753 by the Swedish botanist Carl Linnaeus (1707-1778) and honors Adriaan van den Spiegel (1578-1625), a Flemish Physician who was renowned for his studies of anatomy. He also studied botany and his studies included techniques for preserving dried specimens of plants. His efforts were highly regarded by Linnaeus, who was also a practitioner of studying dried plant specimens. Linnaeus crafted the genus name when studying and naming *Spigelia anthelmia*, a native to areas in and neighboring the Caribbean. Interestingly, when Linnaeus initially studied Indian Pink, he considered it to be a honeysuckle, naming it *Lonicera marilandica* in 1753. He altered the genus to *Spigelia* in 1767. The species epithet of *marilandica* means ‘of Maryland’. Oddly, Maryland is its northernmost native range on the east coast. The species is naturally found from Maryland south to Florida, west to Texas and Illinois and despite its tropical appearance and family ties to warmer regions, the plant is hardy from zone 5-9.

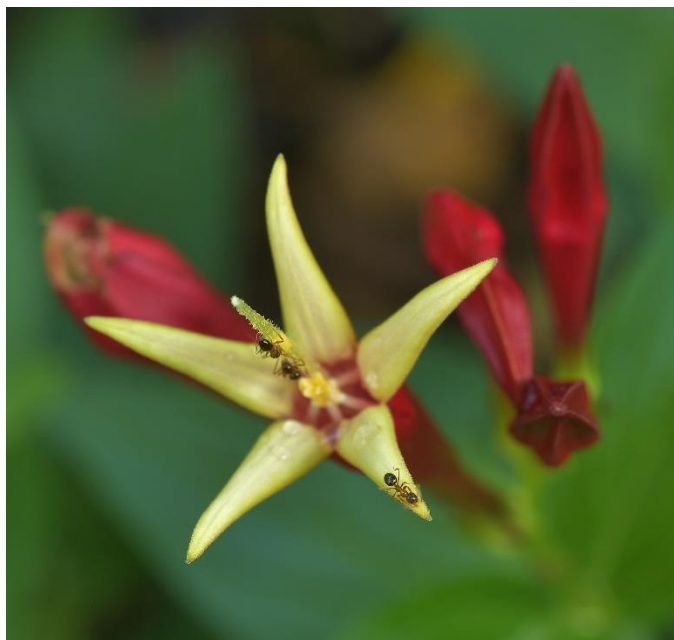
The common name of Indian Pink or Pinkroot was evidently first coined by the English writer and gardener John Evelyn (1620 –1706). His inspiration for the name remains partially a mystery, since no part of the plant, including the root is pink! Similar to other members of the Loganiaceae, the plant is poisonous and contains the alkaloid spigeline, with the highest concentrations in the roots. The inspiration for part of the common name was the use of the roots by Native Americans, particularly the Creek and Cherokee, as a vermifuge or medicine to treat intestinal worms. The dried roots were also traded, sold and harvested by European settlers. Its medicinal virtues caused it to be collected in excess, perhaps explaining why plants remain

relatively rare in the wild today. Another benefit provided by the alkaloid is lower deer predation, a huge benefit to many gardeners!

Although rare in the wild, it is becoming an increasingly popular plant amongst gardeners and deservedly so! The exotic looking brilliant red flowers appear along the upper side of a curved cyme, which emerges from the tips of the unbranched stems. The curved floral stem gives rise to 2-12 vertically oriented flower buds (as seen at right), with the flowers opening from June into early August. The flowers are 1½-2” long and consist of 5 fused petals. The flowers have an overall trumpet shape, with a very narrow base that gradually expands along the length of the flower. Near the tip of the flower bud lies a slight constriction, marking the ‘hinge’ above which the 5 petals reflex backward to reveal the gorgeous, bright yellow inner surface. The yellow beautifully compliments the outer, scarlet red coloring of the trumpet!



Each ½” long petal is slightly recurved and comes to a sharp point, giving the 1” diameter open flower a star-like quality. Just as the petals begin to open, the golden yellow female style and stigma can be seen pushing out through the tip of the still mostly closed flower. The style is the stem connecting the pollen receiving stigma to the ovary. Once the flower is open, the intricate wheel-like appearance of the anthers around the style becomes evident (as seen at left). Each of



the 5 filaments or ‘stems’ that supports the anthers, stretch from the inner side of each fused petal to a point just above the reflexed petals, with the anthers meeting in the center. Overall, it creates an interesting spoked wheel-like appearance when viewed from above (as seen at left). The style is fringed, as seen below left, and it continues to extend through the center of the anthers until it ultimately stands ¾” proud of the anthers. This upward extension of the stigma through the anthers explains how the flowers are primarily self-pollinated. The fringed style also aids in self-pollination through the act of the bristly hairs collecting the



sticky pollen from the anthers as it extends upwards. The pollen proves to be attractive to visiting ants as a food source and as they gather the pollen from the style, some is inadvertently deposited on the stigma as they scurry about the flower (as seen in the image above). The pollen on the hairs of the style also allows other visiting pollinators to collect the sticky particles and transfer them to the stigma of the same or another flower. Although not a frequent visitor, the most colorful and noted visitor to the flowers is the Ruby Throated Hummingbird. This of course begs the question of why a gardener would buy a Hummingbird feeder when you could simply plant a mass of *Spigelia*!

Roughly a month after pollination, each flower produces two round seed capsules that gradually turn from green to dark purple as the seed matures. Initially the dark purple coloration appears as a narrow band across the top of each capsule, with the two structures separated by the remnants of the

style (as seen at right). When I first saw the two capsules, they appeared like eyes from a TV cartoon caricature I remember from my youth with the style resembling the nose! Each capsule contains 4-7 seeds and once ripened, they are catapulted outward from the capsule through a process called explosive dehiscence, ensuring the seeds are dispersed as far as possible from the parent plant.

It is not just the flowers that look attractive, but so does the foliage and overall habit of the plant. Plants grow from 12 to 28" tall and slowly expand over time to make a sizable clump. The oppositely arranged, lanceolate foliage ranges from 2-4" long by 1-2½" wide and is an attractive dark green in color. The foliage lacks petioles or 'leaf stalks' and is directly attached to the stems, providing a very dense and sturdy appearance. In the wild, plants are typically found in lightly shaded and moist areas including low woodlands, stream edges and locations adjacent to swamps. However, they are very adaptable and grow well in average garden soil that is amended with compost. If you are looking for more uniformity in height and size, the selection 'Little Redhead' provides ample flower production on 2' tall stems.



Indian Pink is becoming increasingly available at various nurseries and is certainly worth the patience to find. With so many great virtues, it is hard to phantom why this species was not a more popular landscape plant long before now. I can only guess its scarcity in nature was partially to blame. Regardless, this hardy plant has a beautiful tropical flair that will certainly enhance northern gardens with its bold color and touch of drama often missing in hardy flowering plants!



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