



The first image of *Zephyranthes atamasco*, published under the polynomial *Lilio narcissus indicus pumilus monanthos albus* by European Robert Morison in 1699. In addition to the flowering scape, three versions of the fruit are given, with four seeds above the one on the right.

All photos by the author



# Rain Lilies

When the first Europeans arrived in the New World, they viewed all plants as potential herbs. In the late 1500s and 1600s, it was not unusual to find three to four hundred medicinal and culinary herbs in a single English garden. No plant was merely decorative. All levels of society were aware that health and food depended upon knowledge of plants. Among the many species that Europeans considered medicinal are Lilies, Amaryllis, and Crocus.

One of the early New World visitors discovered another “lily” growing in the coastal regions of what is now the state of Virginia. This lily became the first of the rain lilies known to the world. Robert Morison published in 1699 the oldest mention of the American species in his *History of Plants*. He called the herb *Lirio Narcissos indicus pumilus monanthos albus* (the [West] Indian Narcissus lily with small white single flowers). Morison also said that the common name *atamasco* was used for cultivated plants he had

seen grown by Carol Hatton. This rain lily received its current name, *Zephyranthes atamasco*, in 1821.

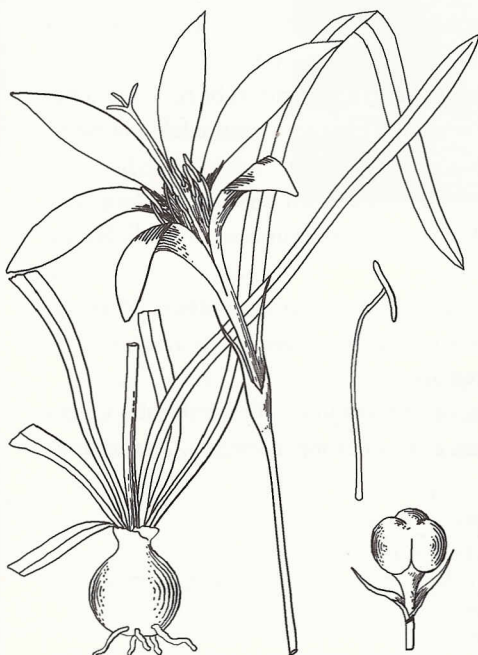
When John K. Small wrote his *Manual of the Southeastern Flora* in 1933, he recorded common names for the four *Zephyranthes* he found. He and others called them amaryllis, Atamasco-lilies, Easter-lilies, fairy-lilies, rain-lilies, stagger-grasses, and zephyr-lilies. To Bahamians, they are crocus or snowdrop; Colombians think they look like *jacinto* (hyacinth); Cubans call them *brujita* (little witch); and Puerto Ricans and Dominicans say *duende* (little devil).

These common names tell us several things about what people think of the plants. First, Europeans and their descendents in the Americas saw resemblances between Old World plants (lilies, crocus, amaryllis, snowdrops, hyacinth) and plants found in the New World. Instead of incorporating new names for the American plants, sometimes they simply transplanted old ones for them. At other times, the newcomers adopted in-

igenous names. The specific name *atamasco* and the common name Atamasco-lilies are derived from *attamusco* (meaning: it is red) used for the plants by speakers of an Algonquian language in Virginia. *Atamasco* is a reference to flowers that turn from white to pink with age.

The generic name given to rain-lilies by William Herbert speaks of plant biology. *Zephyranthes* is derived from *zephyros* (*zephyros*, the Greek god Zephyr was the west wind who reawakened nature each spring) and *anthos* (*anqos*, flower). This is an allusion to their tendency to flower suddenly after a spring or summer downpour, appearing as if by magic from what had seemed to be grass leaves. The names *brujita*, *duende*, *fairy-lilies*, *rain-lilies*, and *zephyr-lilies* all refer to the abrupt emergence.

“Stagger-grasses” alludes to the symptoms shown by cattle and horses when they graze on *Zephyranthes*. Indeed, *Zephyranthes* contains a cocktail of alkaloids including poisons (e.g., lycorine, glycosides, and pancratistatin), and antitumor agents. One source says that the bulbs of Atamasco-lily were eaten by the Creek Indians in time of scarcity, but that would be risky. Perhaps stagger-grass was made acceptable by roasting, as is *Z. candida* in tropical America. Seminoles also used *Zephyranthes* as an analgesic against toothache. Other species have



A more detailed modern image of *Zephyranthes atamasco*. This drawing shows more detail on the flower scape, the basal leaves and root, a fruit, and a single stamen. from N. L. Britton and H. A. Brown, *Illustrated Flora of North America* in 1985.

been used to treat diabetes, to reduce fevers, in poultices against abscesses, against colds, coughs, and tuberculosis; and to treat external infections.

*Zephyranthes* species are under different controls on flowering, and there sometimes seems to be no rhyme or reason to when blossoms appear. Less is known about the introduced and cultivated species, but many are stimulated to flower by fires, mowing, and spring or summer rains. When fires burn through our remaining pine flatwoods, the rain-lilies are among the species responding. Even though the timing of the rains varies, if the temperatures change enough, the plants seem to be stimulated into flowering. Mowing is an artificial fire from the plant's view. When these herbs are in lawns, roadsides, or pastures, mowing causes them to flower in the "wrong" season, especially if the soil is moist enough. But Florida natives are especially sensitive to *Zephyr* when he starts the spring rains – this is when the rain-lilies are at their peak. ✨

## Old World Relatives

### AMARYLLIS

This word appeared in the Greek poetry of Theocritus (310-250 BC) and was used later by Latin poets Ovid (43BC-18 AD) and Virgil (70-19 BC). The original name was of a Greek country girl or shepherdess. In 1637, herbalist-physicians began using the name *amaryllis* for lily-like plants. Finally, Linnaeus started applying it to relatives of *Hippeastrum* (common name *amaryllis*) in 1738. As a genus, *Amaryllis* is restricted now to *A. belladonna*, the belladonna lily from South Africa. However, by 1753, this African species was already well known in Europe, the Caribbean, and South America. Belladonna lily is cultivated for its autumn flowers and signifies "pride" in the language of flowers.

### CROCUS

Another Greek classical name, *krokos* (krokos), has cognates in Hebrew (*karkom*), and Arabic (*kurkum*). *Crocus* was a young Greek shepherd who fell in love with *Smilax*, a shepherdess. She ignored him, and when he died of a broken heart, the gods changed him into a flower bearing his name. *Crocus* spread in Latin northward from the Mediterranean and became part of Old English (*croh*) and Irish and Gaelic (*kroch*).

*Crocus* turns out to be two botanical genera in different families. *Crocus sativus* (IRIDACEAE, iris family) is the source of saffron (from Arabic *za'faran*). Although originally used as a reddish dye, saffron eventually became the signature ingredient in certain Mediterranean foods. Then it was discovered that those who used the seasoning had fewer cardiovascular problems than their neighbors. Not only does the spice reduce heart and other circulatory problems, but it is also the richest known source of vitamin B2 (riboflavin).

The other *crocus*, *Colchicum autumnale* (LILIACEAE, lily family), is the source of colchicum (*tinctoria colchici*), used as a pain killer for gout. The active ingredient, colchicine, is an alkaloid that also causes errors in cell division, resulting in doubled chromosomes. Colchicine was first used in plant breeding, and then in treating certain kinds of cancer.

### LILIUM

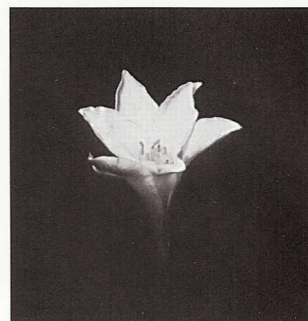
The Latin word, from Greek *leirion* (leirion), did not appear in English until about 971 A.D. The most well-known and useful of European lilies was *Lilium candidum*, the one mentioned by Shakespeare. According to an ancient Semitic legend, the lily sprang from the tears of Eve when she was expelled from the Garden of Eden. The lily was the symbol of motherhood to Sumerians, Babylonians, Assyrians, and Egyptians. Lilies were the flower of Hera, Greek goddess of the moon. In Rome, *Lilium* was the emblem of Juno, the goddess of light.

Fresh and dried flowers are used in medicines, the pollen against epilepsy, and the flowers to scent perfumes. Mediterranean use goes back at least 5000 years, when *Lilium* was drawn on Minoan (Crete) frescoes. This lily is probably the "Rose of Sharon" of the Bible, and has been in cultivation since 1500 BC. With spread of the Christian religion, the lily was associated with the Virgin Mary and became incorporated into many religious pictures. The species is now known as the annunciation lily (based on the 25 March Catholic festival to the Virgin Mary), Madonna lily, or Bourbon lily.

## About Rain Lilies

### *Zephyranthes* (AMARYLLIDACEAE)

**G**labrous perennial herbs with bulbs, often clumped. Leaf blades elongate-linear, grass-like, with overlapping sheath bases. Flowers radially symmetrical, single and terminal on a scape, a spatheous tubular in bud, thesis about the ovary infertubular, six-above, the two similar petal-yellow or purplish pink fused with stamens 6, in-



bract below, but splits at an-half its length, rior. Perianth segmented series of three like segments, white, becoming veined or suffused with purple; inserted on the

throat of the perianth, the anthers attached medially on the back; stigmas 3. Capsules three-lobed, three-locular; seeds numerous black, lustrous, flat, D-shaped. Forty species, about half in cultivation; southern U.S. (Virginia to Arizona), West Indies, Mexico, Central America, and South America to Argentina.

*Z. atamasco* (Atamasco-lily, Rain-lily) - Perianth tube > 1 cm long, segments spreading, 5-10 cm long. Leaves 2.5-4.5 mm wide. Flowering in spring. Mixed forests, clearings and meadows, moist wet pastures. Virginia to northern Florida and Mississippi. **Threatened.**

*Z. treatiae* (Treat's zephyr-lily) - Perianth tube > 1 cm long, segments spreading, 5-10 cm long. Leaves 1-2 mm wide. Flowering in the spring, especially after fires. Wet pine flatwoods, now on roadsides and mowed sod near flatwoods. Southern Georgia to central peninsular Florida, and west to Gadsden Co. **Threatened.**

*Z. simpsonii* (Red-margin zephyr-lily) - Perianth tube > 1 cm long, segments spreading at apex, 3-6 cm long. Leaves 1-1.5 mm wide. Flowering in the spring and summer. Wet pinelands, pastures that were formerly pinelands, roadsides. Cultivated. Endemic to central and southern peninsular Florida. **Threatened.**

*Z. candida* (Autumn zephyr-lily) - Perianth tube to 5 mm long, white to pink, flowers 5-6 cm long. Flowering in the fall. Native to Argentina.

*Z. citrina* (Yellow zephyr-lily) - Perianth tube > 1 cm long, yellow, flowers 5-6 cm long. Flowering in the summer and fall. Native to South America.

*Z. grandiflora* (Rose-pink zephyr-lily) - Perianth tube > 1 cm long, white to pink, flowers 6-10 cm long. Flowering in the summer. Native from Mexico to Guatemala.

*Z. rosea* (Brujita rosada, Leli de San José) - Perianth tube > 1 cm long, white to pink, flowers 2-3.5 cm long. Flowering in the summer. Native to Cuba.

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