



Jack-in-the-pulpit a hidden treasure

By Susan Yost

Jack-in-the-pulpit (*Arisaema triphyllum*) is a native perennial wildflower with an intriguing flowering structure.

When you look at a Jack-in-the-pulpit, you're not actually seeing the flower, although there is a cluster of small flowers hidden within.

What is visible from the outside is an attractive modified leaf called a spathe (the "pulpit"), which is green, and often striped purplish-brown. The spathe arches gracefully over the spike-like spadix (the "jack").

This spadix has a sterile upper portion visible under the spathe, and flowers located lower down, with the male flowers above the female. Smaller plants are often male, and larger plants are often female, probably because it takes more energy to produce fruits than pollen.

Surprisingly, Jack-in-the-pulpit can switch sexes; an individual plant may be female one year, and

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male another year, depending on its size and energy reserves. The "spathe and spadix" combination seen in Jack-in-the-pulpit is also typical of other members in the Arum family (Araceae), including skunk cabbage (*Symplocarpus foetidus*), callalily (*Zantedeschia*), and corpse flower (*Amorphophallus titanum*) which has the largest unbranched inflorescence in the world.

In the eastern U.S., this perennial woodland plant comes up each spring from an underground stem, called a corm. Native American Indians used the corm of Jack-in-the-pulpit as food; another name for this plant is Indian turnip. However, it can be eaten only with careful preparation because needle-like calcium oxalate crystals (raphides) cause intense burning and swelling of the mouth and throat. Very thorough drying is said to make it safe to

eat. It can be sliced thin and eaten like potato chips, or ground into flour.

In the autumn, the bright red Jack-in-the-pulpit fruits are produced in a rounded cluster, and are eaten by birds and mammals. The "triphylum" in the scientific name refers to the three-parted leaves.

Gardeners can grow Jack-in-the-pulpit in moist humus-rich soil, in partial shade. A good source of native plants is the Delaware Native Plant Society's annual native plant sale on Nov. 1 (delawarenativeplants.org).

To see Jack-in-the-pulpit, attend the botany walks at Bombay Hook National Wildlife Refuge on Tuesdays at 10 a.m., and May 17

at 1 p.m. (www.bombayhook.gov).

Related species of *Arisaema* from Asia, sometimes called "cobra lilies", have wonderful variations on the spathe; these can be seen growing in the Asian collection at the National Arboretum in Washington.

Editor's note: On the campus of Delaware State University, the Claude E. Phillips Herbarium is Delaware's center for research, education, and outreach about plant identifications, locations, and uses. Call 857-6452 (Dr. Susan Yost, herbarium educator) to arrange a tour of the herbarium, or for more information about this article.



Submitted photo
Jack-in-the-pulpit (*Arisaema triphyllum*) is a native wildflower with an unusual flowering structure.