

## Invasive Species Profile: Italian Arum (*Arum italicum*)

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**Native Range:** southern and western Europe, northern Africa, and western Asia

**U.S. Introduction:** an ornamental, first date and place are uncertain

**Life Cycle:** perennial

**Means of Spreading:** self-dividing tubers or corms; berries, eaten by wildlife that pass the seeds

**Commercially Available:** yes

**Control Method:** dig up young plants and small patches; herbicides have varying degrees of efficacy

**Good Alternative Species:** Jack-in-the-pulpit (*Arisaema triphyllum*)

**Comments:** In 2007, when Fairfax County Park Authority's Invasive Management Area (IMA) volunteers first started scouring the parks around Royal Lake to remove designated invasive targets, Italian arum (*Arum italicum*) was nowhere to be seen. Its first sighting here of a single specimen happened in January 2020. Dark green leaves with distinctive silvery veins emerge in late autumn and last into spring (Figure 1). During winter, its foliage contrasts against the dried, brown husks of surrounding deciduous plants. Every year since that first discovery, Italian arum is found with increasing numbers.

In Fairfax County, Italian arum is classified as an [Early Detection Rapid Response \(EDRR\)](#) species whereas [Arlington](#), [Alexandria](#), and [Washington state](#) already label it invasive. Unlike IMA weeds (e.g., [English ivy \[\*Hedera helix\*\]](#), [Bradford pear \[\*Pyrus calleryana\*\]](#), [autumn olive \[\*Elaeagnus umbellata\*\]](#)), which are already major problems in natural areas, EDRR species have yet to fully establish themselves. As their populations are still low, usually because they were relatively recently introduced to the region, EDRR plants lack biological controls and are on their way to invading natural areas. The prime time to truly control and eradicate an EDRR target is when its numbers are still small—the sooner, the better. The best option is prevention by keeping the species out in the first place (Figure 2). Once it is introduced and escapes cultivation, those specimens or tiny populations are easily removed if initially detected, which is where Italian arum now stands in the Fairfax County. Leaving these populations unchallenged allows them to expand, often at rapid rates. Any EDRR species growing outside of parkland—from gardens to neglected lots—have the same expansion potential. After the weed becomes widespread, hopes of eradicating it shift to controlling it or preventing it from reaching ecologically sensitive habitats.

The problems with Italian arum are that those individuals and little clumps can form extensive ground-cover mats that bully out native plants. All parts of the arum contain calcium oxalate crystals—a defense against getting eaten by herbivores. In people and pets, exposure can cause a range of symptoms from skin irritation on contact up to death after ingestion. Most critters avoid eating its leaves and roots. However, some birds withstand devouring the arum's berries only to disperse the seeds through droppings. The ripe fruit clusters look like those of Jack-in-the-pulpit (Figure 3b) but tend to have more of an orange hue and better berry symmetry. Each seed can potentially germinate and multiply into a new patch.



**Figure 1.** Photographed in January, Italian arum's arrowhead-shaped leaves stand out against the dormant groundcover. The only other greenery seen here is [Japanese honeysuckle \(\*Lonicera japonica\*\)](#), an invasive vine. Foliage and foul-smelling, late spring-blooming flowers reach around 18 inches tall. Italian arum reproduces vegetatively by sprouting new corms (inset, arrows) from older ones.

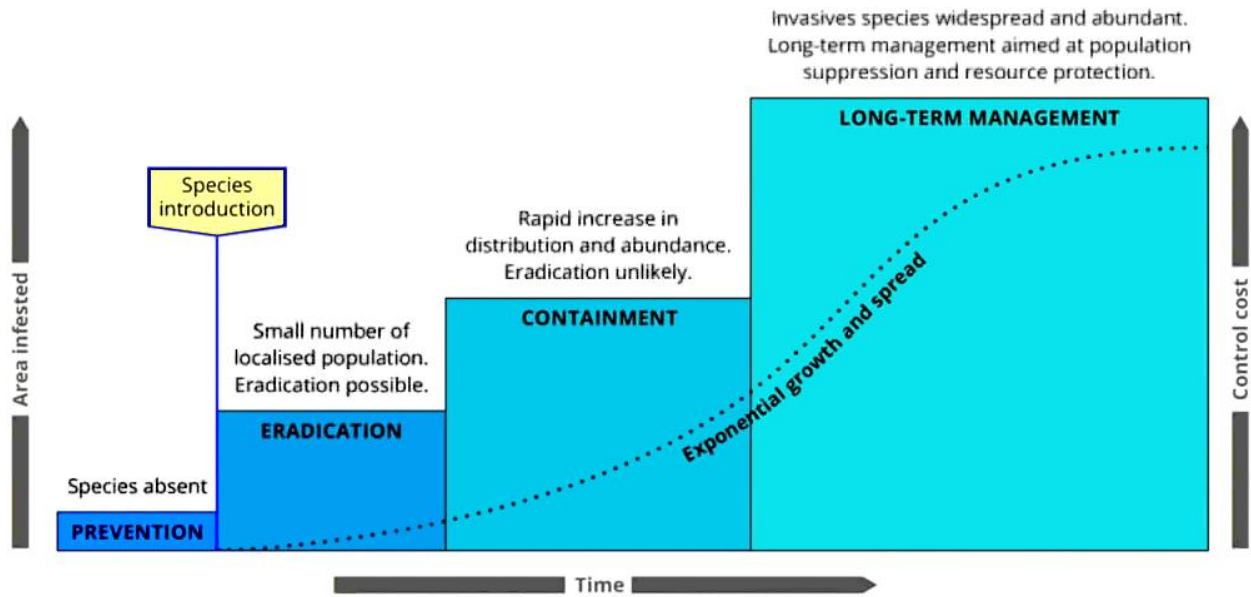


Figure 2. A species attains four strategic stages on its way to becoming invasive in a new area. As populations become established, they require more effort and funding toward the goals of either eradication or control. Source: The Invasive Species Council <https://invasives.org.au/> and used with permission.

The most effective way to control Italian arum is digging up young specimens. Older plants have deeper roots and corms—a specialized energy storage bulb-like structure—that are already self-dividing to form patches. All of the corms must be removed; any left in the soil will produce a new plant. Cutting back the leaves or only digging up the underground stem means that weed will grow back—sometimes in that same growing season! Large patches might need herbicidal treatments, though some sources claim herbicides perform poorly on arum. Others say chemicals work but require multiple applications over several years to kill the corms. According to Frey & Schmit’s 2019 publication, mixed herbicide treatments containing triclopyr + metsulfuron methyl or glyphosate + metsulfuron methyl were effective. Whenever using herbicides, read and heed the label!



Figure 3. Jack-in-the-pulpits bloom in late spring. The flowers are either solid green (A) or sport purple streaks. The three leaflets resemble [poison ivy \(\*Toxicodendron radicans\*\)](#), but the ivy grows on woody twigs whereas *Arisaema* has fleshy stems. Flower stalks and leaves vary in height, often reaching two feet. Red berries develop in late summer (B) and last into the fall, when birds eat the ripe fruits. Jack-in-the-pulpits mix well with other shade to partial shade-loving plants, such as mayapples (*Podophyllum peltatum*), fringed bleeding hearts (*Dicentra eximia*), and wild ginger (*Asarum canadense*), seen here growing together in a native garden (C).

A first-rate native alternative to arum is Jack-in-the-pulpit (*Arisaema triphyllum*; Figure 3). While this plant belongs to the same family as Italian arum and also has calcium oxalate, its populations stay balanced here in moist woodlands. It naturally ranges across the eastern half of North America. When buying this plant, doublecheck the Latin name because the "Jack-in-the-pulpit" common name is sometimes shared with *Arum maculatum*, a European species closely related to Italian arum.

For more information on Italian arum in print:

Frey, Mark and John Paul Schmit. 6 August 2019. "Controlling Italian Arum (*Arum italicum*)," *Natural Areas Journal* 39(3):372-377. <https://doi.org/10.3375/043.039.0309>

Swearingen, J., B. Slattery, K. Reshetiloff, and S. Zwicker. 2010. *Plant Invaders of Mid-Atlantic Natural Areas, 4th ed.* National Park Service and U.S. Fish and Wildlife Service. Washington, D.C. pp. 168. <https://www.invasive.org/midatlantic/fieldguide/index.cfm>

Additional online resources are at:

<https://armn.org/2023/03/24/fighting-a-new-non-native-invasive-in-town-reports-from-the-front-line-on-removing-italian-arum/>

<https://mgmv.org/plants/invasive-plants/italian-arum/>

<https://solvepestproblems.oregonstate.edu/weeds/italian-arum>

<https://www.invasiveplantatlas.org/subject.html?sub=13931>

<https://www.lewisginter.org/italian-arum/>

[https://www.nwcb.wa.gov/pdfs/ItalianArum\\_Brochure.pdf](https://www.nwcb.wa.gov/pdfs/ItalianArum_Brochure.pdf)

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