# Italian Arum

# Making a difference ... together

# **Invasive Species Alert Sheet**

# Regional Invasive Species Program

The spread of non-native invasive plants has serious ecological, economic and health impacts. Local governments and other partners are asking for help from all residents to report and address Italian arum (*Arum italium*) outbreaks on private property and public lands.

Italian arum is a low growing, herbaceous perennial native to Europe that was introduced as a garden ornamental. It thrives in a wide range of environments, from closed to open canopy, and under variable pH and soil conditions. Typical habitat includes horticultural gardens, roadsides, and natural areas including forests, riparian areas and wetlands. It is drought tolerant once established. Italian arum can be found in areas of southern Vancouver Island, the Gulf Islands and the Lower Mainland and appears to be spreading. Because this species can tolerate cold temperatures and high latitudes it is likely capable of establishing in most regions of the province.

## Why is Italian Arum a problem?

- Highly invasive Italian arum outcompetes native vegetation, threatening local ecosystems and endangered species. Plants can shade out smaller native plants, and prevent other plants from getting established. Italian arum reproduces from seeds, tuber buds on roots, and horizontal rhizomatous roots making it extremely difficult to remove effectively.
- **Toxic:** Any part of Italian arum can cause severe skin irritation, illness, or death, as the plant is highly toxic to people and animals. **DO NOT CONSUME** and ensure protective gear is used when handling.

#### What does it look like?

- Flowers: white to pale yellow, resemble a calla lily flower, made of a spathe and spadix, blooming in late April to June, can smell unpleasant
- **Stems:** growing up to 30-40 cm tall
- Leaves: waxy, arrowhead shaped, dark green with distinctive cream/silver veining. Young leaves may be more oval shaped without veining. Emerge fall to late winter and die back in summer when berries are evident, leaves can measure up to 30cm long.
- **Seeds:** Fruit is a tight cluster of green berries that turns to vibrant orange-red, grows in striking, tight, oblong clusters on the top end of a stalk, appear in late summer when flower and leaves die back. Seeds mature in August.



Produces a toxic orange-red berry. Berries are in tight, oblong clusters.

 Roots: underground horizontal rhizomes and tuber bulblets, which multiply annually and break off to establish new plants

#### Could be confused with:

- Other members of the Arum family, particularly:
  - Calla/Arum Lily (Zantedeschia aethiopica) especially while not in flowering season
  - Stink Lily (*Dracunculus vulgaris*)
  - · Jack in the Pulpit (Arisaema triphyllum)
  - · Wapato (Sagittaria latifolia)



Leaves emerge in the fall to late winter and die back in the summer. Leaf blades are arrowhead-shaped, green and may have cream, silver-gray or other colored veins and markings.

### **Habitat and biology:**

- Low growing herbaceous perennial from the Araceae (Lily family)
- Grows up to 30-40 cm in height, with leaves that can measure up to 30cm long
- Reproduction occurs via tubers and seeds, moved by birds, ants, water and improper disposal of plant parts. Each berry contains three seeds.
- Flowers appear only 4-5 years after germination
- Once seeds are dispersed, they germinate the following growing season
- First year is spent producing a tuber while no foliage is produced
- First flower will appear 4-5 years after seed germination
- **CAUTION:** All plant parts contain toxic calcium oxalates in needle shaped crystals in all plant parts and **may cause death** if consumed by humans or animals

## What to do if you spot Italian Arum:

- **Inform:** learn how to identify this plant and stay out of infested areas. Please report all patches to the contacts listed who can help confirm the plant's identity and advise in its elimination
- **Remove:** please follow the management instructions below for careful removal and follow up
- **Prevent spread:** clean shoes, tools, clothing, vehicles, pets and equipment before leaving an infested site
- Management: method will depend on where you are managing. In the case of small patches, dig up entire plant and root system. Remove berries as soon as noticed to prevent seed spread by birds. Research into herbicide use on Italian arum showed that above ground foliage can be killed by some herbicides, but the tubers and roots often survive. Refer to local and provincial regulations for herbicide use. Experiments of applying boiling water to tubers have had success, however, long term control is unproven.



Cutting and bagging the stems with berries will prevent seeds from being spread and beginning new infestations.



Carefully digging around the stem, all the way down to the tuber, removing the tuber and daughter tubers, and disposing the tubers in a sealed bag in the garbage, can provide some control after many years.

- **Manually Remove:** by digging up entire plant and root system. This is only recommended on small patches, requiring care to effectively remove roots and bulbs, along with regular monitoring for new plants. There is the risk of spreading tubers throughout disturbed soil if great care is not taken to ensure proper disposal.
- **Replant:** choose non-invasive or native species to replant
- **Monitor:** monitor for growths and outbreaks and continue to monitor for several years, especially during active growing time in late winter to spring, dying back in summer. Seedbank and tubers can survive and persist even after removal of plants.

### **Proper disposal:**

- Do not compost! Seeds, bulblets, and tubers can spread Italian arum to new sites
- Put all plant material and attached residual soils in garbage bags and dispose. The best option is to take the bags labelled "invasive species" to the Hartland Landfill.