

Chinese Yam



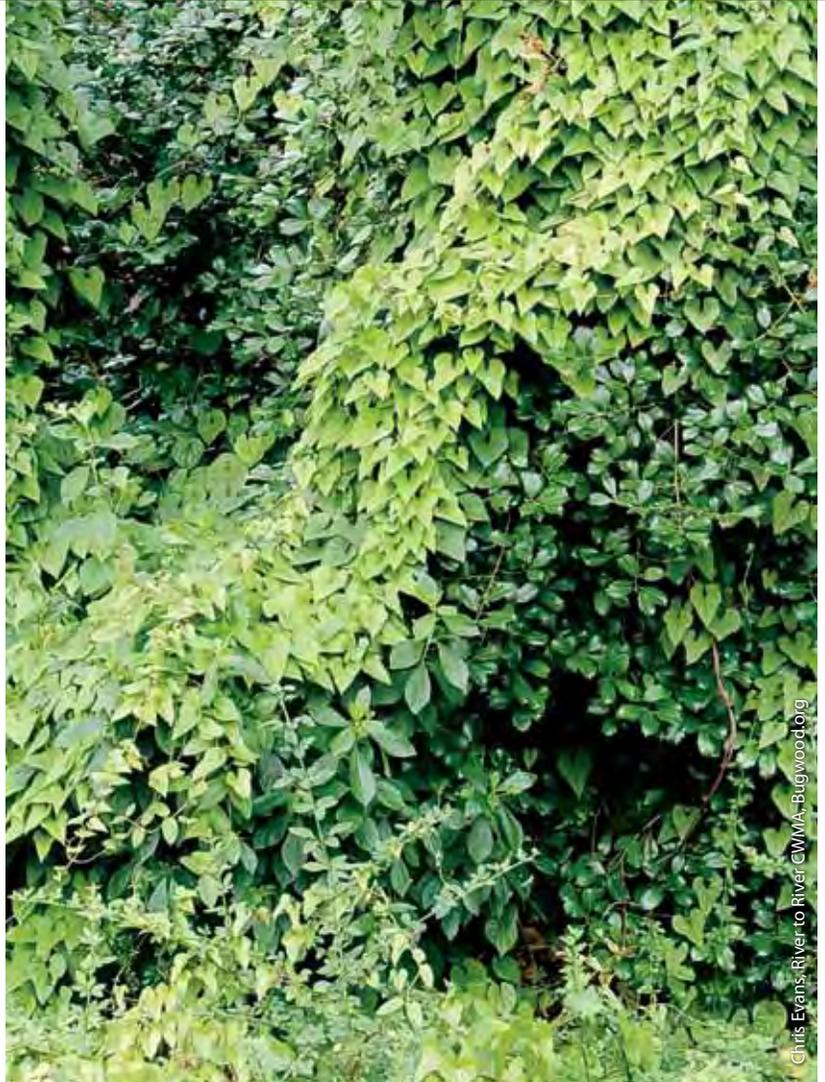
Background, Life History

Chinese yam (*Dioscorea oppositifolia*, syn. *D. batatas*) also is known as cinnamon vine or air potato. It was brought from China to North America in the 1800s for ornamental, food and medicinal uses. Having escaped cultivation by the mid 1980s, it is now found throughout the eastern and central United States, including a number of counties in southern Missouri. It continues to be sold as an ornamental plant, but its use should be strongly discouraged.

Chinese yam is an aggressive vine, forming small bulbils that resemble little potatoes in the axils of its leaves. New vines quickly sprout from these bulbils, which typically drop off the vine and can be easily carried to new locations by water or rodents or in topsoil moved for construction purposes. It becomes established in mesic bottomland forests, along streambanks, drainages and roadsides, in fencerows and at old homesites. It can grow in full sun to full shade, but prefers partial shade. It is tolerant of most soil conditions, but is most aggressive in silty loam soils rich in nitrogen associated with riparian habitats.

The green leaves have seven to nine parallel veins and are typically fiddle shaped or sometimes heart shaped with a couple of lobes toward the base of the leaf. There is usually a diagnostic reddish coloration at the base of the leaf on new growth. Leaves are usually opposite, but can be alternate toward the tip of the plant.

The tiny white or greenish-yellow flowers smell of cinnamon, but are not known to produce seed in this country, probably because the plant produces male and female flowers on separate plants, and female plants have not been observed in the wild. Spread, therefore, is limited to vegetative growth. Even a small piece of a bulbil will sprout into a new vine, much the same as a small piece of a potato will create a new plant. The bulbils can overwinter and form new vines in spring.



Chris Evans, River to River (WMA, Bugwood.org)



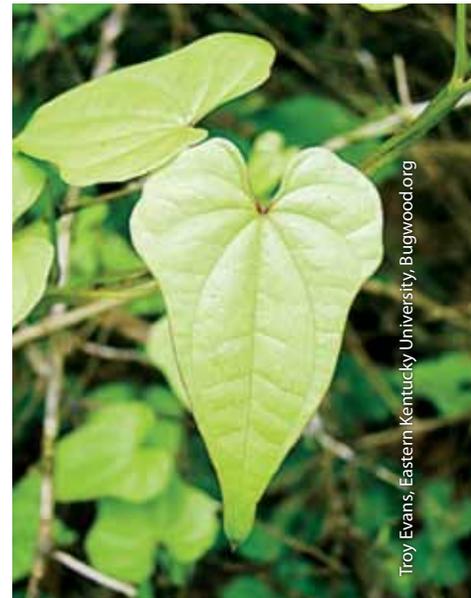
Susan Farrington

Native wild yams have heart-shaped leaves.



Chris Evans, River to River CWMA, Bugwood.org

Like potatoes, even a small piece of a bulbil can sprout into a new plant.



Troy Evans, Eastern Kentucky University, Bugwood.org

To identify Chinese yams, look for fiddle-shaped leaves. New leaves often are red around the edges.

Impacts

The vines of the aggressive Chinese yam can overtake acres, smothering plants on the ground as well as shrubs and trees, blocking their access to light. Its heavy vines are capable of breaking off limbs of larger trees, similar to kudzu. It outcompetes and displaces native plants, reducing plant diversity, and is of little value for wildlife.

Control

Manual and mechanical control is difficult, due to the plants deep, tuberous roots. It should only be attempted in very small populations. All pieces of the tuber must carefully be removed or resprouting may occur. Follow-up monitoring is necessary because bulbils in the soil may germinate over several years.

Herbicides have been shown to be effective. Triclopyr is successful as a 2 percent solution. Glyphosate also may be effective at a 2 percent solution, but it is possible that higher concentrations will be required. The best time to apply is after the leaves have expanded, but before the bulbils ripen.

Native Look-alikes

Our native wild yams (*Dioscorea quaternata* and *D. villosa*) might easily be mistaken for Chinese yam, but pose no invasive risk. Our native yams do not have reddish coloration on new leaves, and do not produce bulbils in their leaf axils. Their fruits are a three-winged capsule, and their leaves are strongly heart-shaped.

Alternative Native Plants

Wild yam (*Dioscorea quaternata* or *Dioscorea villosa*)
Wild potato vine (*Ipomoea pandurata*)

For Additional Information

www.imapinvasives.org/GIST/ESA/esapages/diosoppo.html
www.cas.vanderbilt.edu/bioimages/species/diop.htm
www.issg.org/database/species/ecology.asp?si=296
www.texasinvasives.org/invasives_database/detail.php?symbol=DIOP

www.MissouriConservation.org

For more information or to report a population, contact your local Missouri Department of Conservation office, e-mail WildlifeDivision@mdc.mo.gov, or write:

Chinese Yam
Missouri Department of Conservation
Invasive Species Coordinator
P.O. Box 180
Jefferson City, MO 65102-0180

