

U.S. National Early Detection and Rapid Response System for Invasive Plants

EDRR Fact Sheet

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Common Name: Old World Climbing Fern

Scientific Name: *Lygodium microphyllum* (Cav.) R. Br. (Lygodiaceae)

Family: Lygodiaceae

Synonyms: *Ugena microphylla* Cav.

Description: A perennial climbing fern with dark brown, wiry rhizomes, up to 90' long. **Main rachis** (leaf stalk above petiole) wiry, stemlike. **Fronds** (leaves) opposite, singly compound, 2-5" long. **Leaflets** (pinnules) usually unlobed, stalked; **leaf-blades** usually glabrous below; **fertile leaflets** generally unlobed, fringed with enrolled tissue that covers the sporangia along the leaf margin. **Reproduction** is by spores.



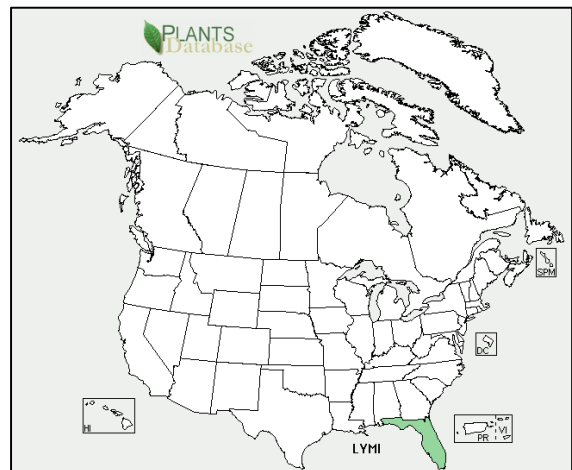
NOTE: Japanese climbing fern, a closely related invader that also occurs in the southeastern U.S., is very similar, but has pinnae that are usually twice compound.

Habitat: Old world climbing fern generally occurs in moist habitats such as Cypress wetlands, tree islands, floodplains, wet prairies, marshes, hammocks, edges of waterways, and roadside ditches. But, it also grows in dry pine flatlands and disturbed areas. It thrives in low-light, under-story environments.

Native Range: Africa, Australia and Southeast Asia.

Pathways of Introduction and Spread: OWCF was first introduced in to the U.S. as a potted plant. It was first found naturalized in the U.S. in south Florida in 1965. Each plant produces millions of spores that are spread by wind, water, even animals, people, equipment, and vehicles. Therefore, new infestations can become established great distances from existing populations.

U.S. and Canada Distribution:



Ecological and Economic Impacts: OWCF can form dense mats that totally cover *and* smother understory vegetation, as well as shrubs as trees. It also poses a serious fire hazard in mature forests. Thick mats of dead fronds that grow in trees act as a fire ladder, bringing wild fires up

into the tree canopy – creating crown fires that can kill trees and native bromeliads that would normally survive ground-based fires.

The long mats also create an avenue for spread of fire in wetland areas where surface waters usually provide a natural barrier. This complicates the use of prescribed fire as a management tool in an infested area. Large-scale chemical and mechanical control efforts are expensive, often temporary in effect. Therefore, *early detection and rapid response* is critical addressing this invader.

Control of Small Patches: Pull out the entire plant (including the roots) and dispose properly, or spray the leaves with an approved herbicide when the plant is actively growing and not stressed by drought, flood, or frost.

Control of Large Patches Climbing into Trees: Cut the plant at waist height – leave a gap of 10-12” between the vines and the roots. Pull the vines away from underlying vegetation. Cut enough of the plant to leave a gap of 10-12” between the cut and rooted portions of the vine. The rooted portion of the plant and spore seedlings should be treated with a herbicide.

Recommended Herbicides:

A. Dry Habitats: Glyphosate ([Roundup](#) and others) (dieback within a few weeks). Metsulfuron ([Escort](#) and others) (dieback within in several months).

B. Habitats in Water or near Water: Glyphosate ([Rodeo](#) and others).

Recommendations for Disposal: Remove fern materials from equipment and shoes before leaving infested sites; store work clothes in a plastic bag until it can be washed. Remove fern material from equipment and shoes, and then bag clothing until it can be washed. Fern material usually has viable spores and should not be used for mulching or composting.

Regulatory Status: Old world climbing fern is being listed as a [U.S. Federal Noxious Weed](#). It is currently regulated as a state noxious weed in [Alabama](#) and [Florida](#).

Online Resources:

- Old World Climbing Fern Fact Sheet – *Identification & Biology of Non-Native Plants in Florida's Natural Areas*. Langland and Burks, University of Florida.

URL: <http://plants.ifas.ufl.edu/misc/pdfs/lygmic.pdf>

- Old World Climbing Fern Fact Sheet – Find it and Kill it. FL-EPPC.

URL: http://plants.ifas.ufl.edu/misc/pdfs/LYGO-Find-and-Kill_2ndCP.pdf

- Old World Climbing Fern Images - U-GA Bugwood Image Gallery.

URL: <http://www.invasive.org/species/subject.cfm?sub=3046>

- Old World Climbing Fern Profile – ISSG - Global Invasive Species Database.

URL: <http://www.issg.org/database/species/ecology.asp?si=880&fr=1&sts=sss>

- Old World Climbing Fern Profile - USDA Plants Database.

URL: <http://plants.usda.gov/java/profile?symbol=LYMI>