

# Wavyleaf Basketgrass: A New Invasive Plant in the Mid-Atlantic

## Description

Wavyleaf basketgrass (*Oplismenus hirtellus* ssp. *undulatifolius*) is a striking grass. It is a low-lying, trailing perennial grass, branching and rooting at nodes along creeping stems called stolons. The leaf blades are flat, about ½ to 1" wide and between 1½ and 4" long, deep green with rippling waves across the grass blades, as though the tide were coming into shore along the leaves. They have elongated pointed tips. The leaf sheaths and stems are noticeably hairy, although the hairs are short, about ¼" long. This characteristic distinguishes it from its closest relative, bristle basketgrass (*Oplismenus hirtellus* ssp. *setarius*), which occurs naturally in the southeastern US and Mexico and has only a few hairs, if any. When it sets seed, from mid-September well into November, the grass spikelets have glumes (lower bracts) with very long awns (extended pointed tips). The awns produce a sticky substance that allows the grass seed to adhere to passing animals and so disperse.



Wavyleaf basketgrass



Wavyleaf basketgrass stem with seeds

## Distribution

Two small populations of a southeast Asian grass never previously found in the US were discovered in Maryland's Patapsco State Park by sharp-eyed botanists in 1996. It was identified as wavyleaf basketgrass (*Oplismenus hirtellus* ssp. *undulatifolius*), an exotic subspecies with two "cousins" native to the southern US -- basketgrass (*Oplismenus hirtellus*) and bristle basketgrass (*Oplismenus hirtellus* ssp. *setarius*). Until the summer of 2008, Maryland was the only place on the North American continent that the exotic subspecies of grass had been reported. In 2000, a private consulting ecologist found this grass by a wooded stream on the property of the Hernwood Landfill in Baltimore County. In 2007, this shade-tolerant moist forest grass turned up more than 20 miles away in Little Paint Branch Park in Prince George's County, where it has been removed by groups of volunteers. During the dry summer of 2007, this fast-moving grass was one of the few plants obvious on the forest floor.

In July 2008, wavyleaf basketgrass was discovered on a property owned and managed by the Piedmont Environmental Council (PEC) in Fauquier County, Virginia. As news of the discovery circulated, a report of an 80-acre occurrence discovered in 2005 in Shenandoah National Park came to light. PEC quickly applied control based on advice from Maryland invasive species specialists who have several years experience with this species. Control had already been implemented in Shenandoah NP. Since September, other occurrences of wavyleaf basketgrass were reported, including a 20-30 acre patch at The Nature Conservancy's Fraser Preserve on the

Potomac River in Fairfax County. Most alarming, it appears it can invade healthy mature forest even more aggressively than the invasive Japanese stilt-grass (*Microstegium vimineum*). Such rapid spread threatens to outcompete native plants and reduce animal populations that feed on them. Dense carpets of wavyleaf basketgrass could adversely impact forest regeneration.

## Control

Wavyleaf basketgrass seems to be controlled by hand-pulling before seed-set. Control should be conducted before seed set. Avoid walking in or working with this species during seed production. If you do, take steps to avoid the spread of the seed. Use strips of duct tape to remove seed from clothes, shoes, gloves and tools. Place waste in garbage bags and dispose of properly. Several different herbicides are being tested.



Wavyleaf basketgrass



Japanese stilt-grass

## Sources

Maryland Department of Natural Resources. 2009. Wavy leaf basket grass moves in waves through Maryland forests. At [http://www.dnr.state.md.us/wildlife/wl\\_basketgrass.asp](http://www.dnr.state.md.us/wildlife/wl_basketgrass.asp). Accessed 7 April 2009.

Virginia Department of Conservation and Recreation. 2009. Wavy leaf basket grass in Northern Virginia. At [http://www.dcr.virginia.gov/natural\\_heritage/vaisc/](http://www.dcr.virginia.gov/natural_heritage/vaisc/). Accessed 7 April 2009.

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