

# Managing Invasive Plants in Coves

## FRAMING THE ISSUE

The fertile soils and available land in the Central and Southern Appalachians prompted intensive agriculture and development during the early stages of European settlement. However, many of the farms were often abandoned, leaving ample disturbed open space for non-native invasive plants to thrive. Non-native invasive plants can be particularly prolific when found in rich Appalachian cove sites as they can easily use the abundant soil nutrients and available water without being kept 'in-check' by natural predators. This creates imbalanced competition and threatens the valuable biodiversity of even the most healthy and mature mesophytic cove sites. Some of the prevalent species threatening Appalachian coves are Oriental bittersweet, kudzu, tree of heaven, multiflora rose, privet, Paulownia (i.e. princess tree), garlic mustard, and Japanese honeysuckle.



Japanese stilt grass



Bittersweet

**Species Spotlight:** Oriental bittersweet, *Celastrus orbiculatus*, is a woody vining species native to eastern Asia. While it is found primarily in areas of disturbance with full sun (e.g. roadsides and forest edges) it is also shade tolerant; birds and other wildlife consume and deposit the seeds in heavily forested areas and the plant can still persist. Bittersweet girdles trees as it climbs into the canopy, posing as a threat from both above and below. Bittersweet is best controlled by herbicide application using the cut stem or hack-and-squirt methods.

## MANAGEMENT RESPONSE

Factoring in invasive species management into a forest management plan is imperative to maintain the health and vigor of a forest. Planning treatments for pre- and post- timber harvests will help reduce the threat of invasive plant invasions. Three key steps to reduce the threat of invasive plants is to: 1) know what is already in the forest and prioritize the areas of highest risk, 2) plan treatments for pre- and post- timber harvest, and 3) budget for long-term treatments.

For more information, view the [webinar](#) hosted in partnership with EcoForesters, a North Carolina non-profit dedicated to conserving and restoring Appalachian forests through stewardship and education.

