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You Ain't From Around Here: Exotic Invasive of the Quarter

Multiflora rose (*Rosa multiflora* Thunb. ex Murr.)

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I will be featuring an invasive plant species in each newsletter. This section will provide resources to help you identify and control these plants, hopefully before they become a problem!

Exotic invasives are non-native plants that are able to thrive and spread aggressively outside their natural range. When spread is extensive, they can alter ecosystem function by replacing native species, changing forest structure, decreasing forest productivity and biodiversity. Some key characteristics include: prolific seeding, efficient dissemination, adaptability to different environments, rapid growth, and lack of natural controls. There are 115 exotic invasive plants in Virginia. Landowners can help stop invasives before they get out of control by 1. inspecting their property regularly, 2. maintaining a healthy forest with minimal disturbance, 3. treating invasives as soon as they are detected and 4. rehabilitating sites after eradication.

Multiflora rose is named for the many clusters of flowers it produces. It has a vigorous root system and was introduced to the United States from Asia in 1866 as rootstock for ornamental roses. Later, it was widely promoted for creating living fences to constrain livestock, for wildlife cover and food, and for erosion control. Most recently, multiflora rose has been planted in highway medians to reduce headlight glare. Unfortunately, this vigorous grower, seeder (one plant can produce up to 1 million seeds per year, and those can remain viable for up to 20 years) and sprouter rapidly invades areas, creating impenetrable thickets and shading out native plants. It is commonly seen along roadsides, in pastures, and in gaps within dense forests.

A number of bird species feed on the hips (fruits) and help disseminate the seed. Multiflora rose grows well on a variety of different soil types, although growth is less vigorous on wet soils. In 1996, an estimated 45 million acres were affected by this species. It is currently found in Oregon and Washington and throughout most of the eastern US, although it is not frequent south of central Georgia, since the seeds require a period of cold to germinate. Multiflora rose occurs in all but 12 counties in Virginia and is listed as a noxious weed by the Virginia Department of Agriculture and Consumer Services.

How you can identify multiflora rose:

Growth: Perennial, thorny shrub with spreading stems; medium height

Leaves: Alternately arranged, divided into 5-11 leaflets (compound leaves) which are oval and have toothy margins; base of each leaf stalk has a pair of stipules (leaf-like structures) with bristles along their edges (see photo)

Flowers: Numerous, white to pink, fragrant, in clusters, bloom in late spring

Fruit: Small red hips, eaten by many bird species; develop in summer, remain on plant through winter

Twigs: Thorny, red-green, shiny, erect and arching to sprawling

Resembles: Native Carolina rose, swamp rose and climbing rose, but these all have pink flowers and non-bristled stipules

How you can control multiflora rose:

Mechanical: In areas with only a few plants, a shovel or hoe can be used to remove the roots – just make sure you get the entire root system because this plant will sprout. This process will need to be repeated 3-6 times a year for 2-4 years to be effective.

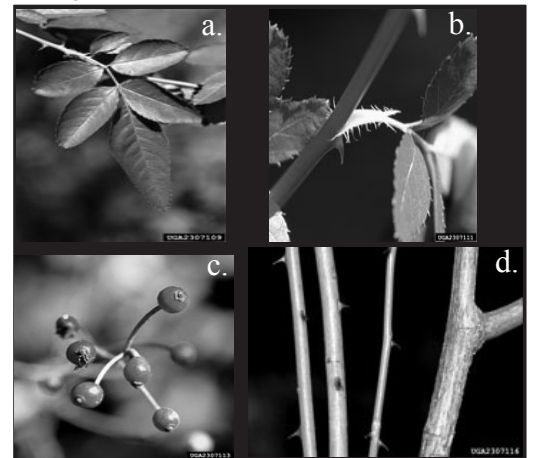
Fire: Prescribed fire in the early growing season can reduce multiflora rose, but may need to be repeated several times.

Chemical: A foliar spray applied directly to foliage; for larger shrubs, herbicide can either be injected into the stems or applied to freshly cut stumps. See Miller, 2003 for specific concentrations and application timing.

Biological: Although not available for landowner use, scientists have been testing two potentially effective biological controls. The first is rose rosette disease which occurs naturally in much of the range of multiflora rose, however, it's ability to also infect non-invasive ornamental roses can be a liability. The second is the multiflora rose seed Chalcid. This is a small wasp which lays eggs in the seeds. When the eggs hatch, the larvae consume the seeds.

References and Additional Information:

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3. Plant invaders of Mid-Atlantic natural areas: Shrubs. www.nps.gov/plants/alien/pubs/midatlantic/
4. Species abstracts of highly disruptive exotic plants at Effigy mounds national Monument: *Rosa multiflora*. www.npwrc.usgs.gov/resource/othrdata/exotic-cab/effirosa.htm
5. Szafoni, B. Vegetation management guideline: Multiflora rose (*Rosa multiflora* Thunb.). www.inhs.uiuc.edu/chf/outreach/VMG/mrose.html



Multiflora rose leaves (a), stipules with bristles (b), fruit (c), and branches (d). Photo credits: James H. Miller USDA Forest Service.