

# Native Wildlife Habitat and Noxious Weed

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Multiflora leaves (*Rosa multiflora*) with insets of the "feathery" margin of the stipule at the base of the leaf stalk, a distinguishing feature of the plant; and ripe multiflora hips



James H. Miller, USDA Forest Service, www.invasive.org

Multiflora rose flowers are white or sometimes pink

When I was a child, a trellis marked part of the boundary between our property and a neighbor's yard. My father had built it: a series of rough-hewn posts strung with horizontal strips of wood. On this framework, canes of the multiflora rose (*Rosa multiflora*) were trained to grow. My parents probably wanted to create a greater sense of privacy by planting this "living fence" (a term much touted then for the multiflora rose) on the side of their lawn.

Growing up in rural America, my mother and father had been influenced by the U.S. Soil Conservation Service's promotion of the multiflora rose for erosion control, which began in the 1930s. The plant was first introduced to America's east coast from Japan in the late 18<sup>th</sup> Century for use as a rootstock to other roses. But people soon discovered that it provided excellent cover for upland game such as cottontail rabbits and bobwhite quail. The multiflora's red and pea-sized hips, or fruit, supplement the diet of many a songbird. The clusters of white to pink flowers that appear in May or June are fragrant and showy.

Ornamental value, erosion control, livestock fencing, habitat for native species: although undeniably an exotic in North America, multiflora rose would seem to have much to recommend it. Why, then, have some ten states classified it as a noxious weed? The answer has partly to do with the plant's value as a "living fence." Multiflora rose has, for instance, been used in highway median strips because its dense growth can serve as a crash barrier. But the downside of the plant's density is its penchant for choking out other species. Still, if multiflora rose simply remained confined to hedgerows, it would probably never have lost its popularity. The shrub is so prolific that the literature uses adjectives such as "unstoppable" to describe its growth. Multiflora rose reproduces not only by seed but also by rooting as the tips of the willowy canes touch the ground. A single plant may produce up to 1 million seeds per year that can remain viable in the soil for up to 20 years. Furthermore, germination seems to be enhanced by passage of the seeds through the digestive tracts of birds, which scatter them quite literally to the four winds. In pastures,

multiflora growth reduces grazing acreage; in woodlands, forest edges, meadows and prairies it crowds out native plants.

Perhaps the best protection against multiflora invasion lies in maintaining healthy plant communities. Multiflora seeds are not apt to reach the ground and sprout in a dense stand of native grass. But where vegetation has been disturbed the multiflora rose readily takes root. Burning or aggressive mowing regimes are very helpful in eliminating infestations. The application of herbicides to newly cut stems kills roots, thus preventing regrowth.

Most biological means of control are still experimental. Rose rosette disease, transmitted through the mite *Phyllocoptes fructiphilus*, kills multiflora roses in two to four years, but the disease may also destroy some native roses, plums, apples and some berries. A small Japanese wasp, the rose seed chalcid (*Megastigmus aculeastus*), attacks the developing seed of the multiflora rose, but horticulturalists are still debating the chalcid's effect on cultivated roses.

The temporary use of sheep and goats may offer an inexpensive biological control for multiflora rose. Goats are particularly helpful for site preparation; whereas sheep eat shrubs only after grazing the available grass, goats prefer

shrubs to grass. Thus, goats not only destroy multiflora roses more quickly than sheep, but they are also far less likely to overgraze pasture grasses. Researchers at West Virginia University discovered goats can reduce shrub coverage in a pasture from 45% to less than 15% in a single season and with careful management to 2% within five seasons. If supplemented by a mowing or herbicide regime, sheep may be as effective as goats.

While the attractive multiflora rose provides some wildlife habitat, its inherently aggressive growth has rendered it a *planta non grata* in New Jersey. Yet with careful management its threat to native plant species can be substantially reduced.



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Upper right: Goats are particularly effective for controlling multiflora rose because of their preference for grazing shrubs

Center left: Multiflora rose boughs in full bloom

Center right: A sketch of the multiflora rose with details of the flowers, leaves, and hips

Left: A thicket of multiflora rose invades a forest edge



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