



Invasive Species

Leaflet

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Elaeagnus umbellata (Autumn Olive, Spring Silverberry)

Initial Introduction and Expansion in Range

Native to eastern Asia, *Elaeagnus umbellata* was introduced to the United States for cultivation in the 1830s. It is now found from Maine, south to Florida and west to Wisconsin. It has been



widely planted as an ornamental shrub and for wildlife food and cover. The ability of this plant to fix nitrogen has also resulted in its widespread promotion and use for re-vegetation and stabilization of disturbed, infertile sites.

Elaeagnus umbellata grows rapidly and produces fruits within 3 to 5 years with a mature shrub producing tens of thousands of seeds. As with *E. pungens*, the fruits are highly desirable to wildlife providing an effective dispersal mechanism for this species. In addition to its prolific fruit production, widespread

seed dispersal, rapid growth and ability to adapt to many sites, *E. umbellata* re-sprouts vigorously after cutting or burning. These traits enable this plant to out-compete native plants. By creating heavy shade, it can suppress natural plant succession.

Description and Biology

- Deciduous shrub up to 20 feet high.
- Slender twigs develop short shoots that may become sharp like thorns.
- Elliptic leaves are 2 to 4 inches long with a bright green upper surface and are densely covered beneath with silver-white scales.
- Blooms in the spring producing fragrant, tubular clusters of silvery white to yellow flowers.
- Fruits mature in the fall and are produced in great quantity. Fruits are small, round, reddish to pink and are dotted with scales.
- Can easily be confused with *E. pungens* (thorny olive); however, *E. pungens* blooms in the fall and produces fruits in the spring. In addition, the leaves of *E. pungens* are waxier than those of *E. umbellata* and have rusty-brown scales on the bottom surface. *Elaeagnus pungens* tends to not be as prolific a berry producer as *E. umbellata*.



Habitats Susceptible to Invasion

The ability of *E. umbellata* to tolerate drought and a variety of soil conditions makes this plant highly successful and competitive in natural areas. Although *E. umbellata* does not do well in densely forested areas, it can invade forest openings and open forests eventually forming dense stands. As with many exotic plants, *E. umbellata* also invades roadsides, pastures, grasslands and disturbed areas.

Prevention and Control

The use of *E. umbellata* as an ornamental shrub and wildlife habitat is still widely promoted. Until this shrub is no longer planted, it will continue to escape cultivation and invade natural areas. Seedlings and sprouts can be grubbed by hand when the soil is moist to ensure removal of the root system. *Elaeagnus umbellata* can be treated from April to October with a foliar solution of 2 percent triclopyr plus a 0.5 percent nonionic surfactant. The most successful chemical control can be achieved with a foliar solution of 1.0 ounce metsulfuron/100 gallons water plus a 0.5 percent non-ionic surfactant. This solution will treat an area approximately the size of an acre. The basal sections (ground to 12 inches) of larger plants can be treated with a solution of 25 percent triclopyr and 75 percent mineral oil. This method should be used judiciously since it takes a large amount of chemicals and can result in overspray. It has been used successfully in situations where no other technique is easy, such as cliff faces or exposed sites. Larger shrubs can also be cut as close to the ground as possible and the stumps immediately treated with a 50 percent solution of triclopyr.

THE LABEL IS THE LAW!
WHEN USING ANY PESTICIDE, FOLLOW ALL LABEL INSTRUCTIONS

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Elaeagnus umbellata photography by James H. Miller, USDA Forest Service, Bugwood.org (left) and Chris Evans, River to River CWMA, Bugwood.org (right).

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