

Some words of caution

In areas of widespread invasions where native trees and shrubs are scarce, removal of these invaders in sections, followed by replanting with natives, may be better than a onetime, wide-scale removal. This should allow any wildlife using Russian-olive or Saltcedar to gradually switch to native vegetation.

Widespread removal and restoration to native riparian forest species may not be an option in some areas. Sometimes, conditions have changed so much that they no longer support native species such as cottonwoods and willows. If you know of places like this, seek professional advice from wildlife biologists on removal and the use of native species adapted to current soil and water conditions. In some situations in the Southwest, leaving Saltcedar may be the best option for conversation of birds.

Saltcedar in the southwestern United States comes with the additional complication of housing some rare, and even threatened and endangered species, like the Southwestern Willow Flycatcher. Contact the U.S. Fish and Wildlife Service Ecological Services Office in your state before planning control efforts.

Produced by the Western Working Group of Partners in Flight, with funding from the Wildlife Habitat Management Institute of the Natural Resources Conservation Service and the Idaho Department of Fish and Game.



Yellow Warbler. Photo by Gary Kramer.

Don't let the invasion
come to a stream
near you!

Why Not Russian-olive and Saltcedar?



Yellow-breasted Chat. Photo by Colleen Sweeney.

Two invited invaders are taking over
our native streamside habitats.

Can we stop them?

What Are They?

Saltcedar (*Tamarix* spp.) and Russian-olive (*Elaeagnus angustifolia*) are two foreign, invasive plants. Unlike many foreign invaders such as knapweed or cheatgrass that snuck in uninvited, Saltcedar and Russian-olive came into our neighborhoods with our blessings.

Introduced in the 1800s by nurseries, these attractive and adaptable species grew well as ornamentals in landscaping. Land managers chose them for wind breaks, erosion control, bank stabilization, and wildlife food and cover.

Unfortunately, some of the very qualities that made these plants so easy to grow allowed them to escape cultivation. Now they are invading our natural areas. Our riparian, or streamside, habitats in particular are victims of the Saltcedar and Russian-olive assault. The long-term consequences for our native plants and animals could be devastating.



Russian-olive and Saltcedar often grow side-by-side in the same habitat. Photo courtesy of Sharon Ritter.

Why are they a threat?

Native riparian areas contain a rich mixture of plant species, from an herbaceous understory, to shrubs, young trees, and mature canopy trees and snags. Each type of plant helps support part of the wildlife community. The more varied and rich the plant life, the more varied and rich the animal community will be. Riparian habitats also are dynamic, relying on periodic flooding to establish new seedlings of willows and cottonwoods.



*Native riparian habitat, S. Fork Snake River, Idaho.
Photo courtesy of Mabel Jankovsky-Jones.*

When Saltcedar or Russian-olive invade, they change things in a big way. They simplify the habitat, displacing and eliminating the native species. This wouldn't be so bad if they provided habitat similar to the native vegetation. But they do not. Yes, they do provide some food and shelter, and Saltcedar provides nesting habitat for shrub-nesting birds in areas in the Southwest where native riparian vegetation no longer can grow. However, the diversity of insects, fruits, seeds, and browse upon which wildlife depend is low in areas dominated by Russian-olive or Saltcedar. Nestling birds depend almost entirely on protein-rich insects brought to the nests by their parents. Native fruits and seeds get many bird species

through the period from late summer to winter, and provide the energy needed for migration.

Although wildlife eat Russian-olive seeds, Saltcedar seeds are tiny and provide little nutrition. Saltcedar leaves and stems have little value for browsing mammals. Neither plant gets large enough to support woodpeckers, chickadees, owls, squirrels, and others that use holes in cottonwoods and other native trees.

Russian-olive and Saltcedar cause problems for farmers, ranchers, and other land managers by invading pasture lands and irrigation ditches. Saltcedar increases soil salinity, while also consuming larger quantities of water than native trees. In some areas, dense Saltcedar increases the chances of a fire wiping out the large old trees by allowing a ground fire to climb into the canopy.

These invasive species keep spreading. Birds and mammals that eat the Russian-olive fruits may deposit the indigestible seeds miles from the tree. So even a tree growing several miles from a stream may contribute its seeds to the problem. Saltcedar's hairy seeds disperse in the wind and water, planting themselves many miles downwind or downstream.

What can you do?

1. Recognize them

Saltcedar is a spreading shrub or small tree with many slender branches and small, alternate, scalelike leaves. Its small, pale pink or white flowers grow in clusters at the ends of the branches. Russian-olive is a thorny, medium-size tree with silver-green leaves, dark bark, and round fruits.

2. Remove them

These species are easy to establish, but difficult to remove. Stop infestations before they get a solid foothold. Hand-pull small plants, and inspect areas yearly to keep the upper hand.

Mature Saltcedars have massive and deep root systems. Both species easily resprout when cut. Control measures for Saltcedar often use root-pulling, flooding, and/or biological (insect) methods, or mechanical removal followed by hand-application of herbicides to the cut stumps. Russian-olive control can involve cutting, girdling, burning, mowing, and/or mechanical removal followed by hand-application of herbicides to the cut stumps. Follow up removal with planting of native species.



*Removal of Russian-olive.
Photo courtesy of Columbia NWR.*

If you have large numbers of these species on your property, seek advice on the best removal options for your situation. You can contact the Natural Resources Conservation Service, your local county weed board, cooperative extension specialists, nearby state or U.S. Fish and Wildlife Service area/refuge managers, or Ecological Services Office biologists for advice on the best techniques. They even may help you physically or financially.

3. Stop planting them

Restoring our native riparian habitats just won't work unless we stop planting Russian-olive and Saltcedar in our yards, on our farms, at our businesses, and on our wildlands.



*Preparing to remove Saltcedar.
Photo courtesy of Columbia NWR.*

- Plant native species instead. Coniferous trees provide good cover and edible seeds. Fruit-producing shrubs provide food, cover, and browse. Contact your local native plant nurseries, The Nature Conservancy, state wildlife agencies, County Extension offices, state native plant societies, and the Natural Resources Conservation Service for lists of native plants in your area.
- Urge government agencies and businesses (e.g., nurseries, landscaping book publishers) to stop supplying Russian-olive and Saltcedar or otherwise encouraging their use. Ask them to promote native species instead.
- Educate your friends, families, neighbors, and colleagues to prevent the further spread (slip them this brochure).