



Just a year before this shot, this stretch of the Powder River east of Kaycee was adulterated with saltcedar. Stalwart work by the Johnson County Weed and Pest Board have cleansed this stream bank of the invasive exotic shrub. The brown spots were formally saltcedar and will soon be filled by native grass and hopefully cottonwoods in time. (Photo by Johnson County Weed and Pest Board)

On the attack against invasive saltcedar

By Jeff Obrecht

CODY — Carp swim the river and saltcedar grows on the banks. Both were mistakenly brought from the Old World to improve North America, and both have proven to be bad news.

The Wyoming Game and Fish Department has tried to eradicate (and even just control) carp, but found it an unwinnable game — the more that were netted, the more eggs they laid. But Game and Fish is having better luck with saltcedar, an

insidious and prolific shrub from Eurasia, the Middle East and North Africa. There's no magic formula for eradication, but from trial and error Game and Fish Terrestrial Habitat Biologist Jerry Altermatt has learned how to make some progress against this selfish plant.

If saltcedar, also known as tamarisk, would have stayed in city parks and around landscaped homes there would be little problem today — the flowery shrub was imported to pretty things up in the 1800s. But it spreads like a bad virus, producing wind-blown seeds during the growing season. It

also eliminates competition from native plants by shedding its salty leaves. The salt leaches into the ground, rendering the soil too saline to grow most plants other than itself. In the natural world, it can be judged as underhanded self-promotion.

Altermatt, who works in the Bighorn Basin, says the altered water regime of Western valleys has also helped the invader. Dams hold back high water flows and diminish the flooding that makes beloved cottonwoods and willows prosper. Plus, without high flows the ground salinity stays intact, further promoting the saltcedar.



Left: The taller saltcedar shrubs allow Russian knapweed to grow beneath them in the Bighorn Basin. Game and Fish and partners are making progress in knocking back the nearly worthless shrub native to the Middle East, North Africa and Eurasia. Above: Contractor Scott Votaw of Field Services helps with saltcedar removal on the Yellowtail Wildlife Habitat Management Area near Lovell. Experience shows a special oil-based herbicide sprayed at the base of the stems works best to kill the invasive pest. (Photos by Jerry Altermatt/WGFD)

This invasive plant has probably been around the Bighorn Basin since the early 1900s and Game and Fish has been on the attack for the last 15 years.

It would be easy if the shrub could be cut off at the base or burned to make each plant history. But those attacks just stimulate the plant's extensive root system, encouraging it to shoot up multiple new bushes; it's similar to the tale of cutting one head off the Hydra and having two more grow back in its place. Treating the stump with herbicide rarely completely kills it, and neither does spraying the plant with Roundup or the old standard 2-4D herbicide.

Altermatt found the best control is spraying the base of the shrub's branches with a special oil-based herbicide.

"However, killing the plant is only half the battle," he says. "Re-establishing native plants to compete with the inevitable saltcedar seedlings can be challenging."

Altermatt and his colleagues have planted nearly 6,000 buffaloberry shoots along the Shoshone River on the Yellowtail Wildlife Habitat Management Area near Lovell to take over spaces left by eradicated saltcedar.

But defending the new growth can be a tough battle. Deer will pluck the tender young shrubs quickly, so the shoots get protected with a hard plastic sleeve. Winter ice flows have also been detrimental, sometimes scraping the tube and shoot out of the soil. A wildfire killed new buffaloberry in 2013. But yet, Altermatt says the eradication and replanting is making progress.

Russian olive trees are another plant fought across the Cowboy State — but at least their fruits are eaten by ducks, raccoons and other wildlife. Saltcedar offers no forage benefit for wild or domestic animals, but the shrubs do prevent erosion in some circumstances, and some songbirds, including the willow flycatcher, will nest in saltcedar in the absence of willows.

In many locales saltcedar also promotes the infestation of Russian knapweed in its understory.

"And Russian knapweed has no redeeming qualities whatsoever here," Altermatt says.

Over the years in the Bighorn Basin, Game and Fish has also attacked saltcedar along Cottonwood, Gooseberry and Shell

creeks and the Greybull and Nowood rivers.

Starting in 2007, the Johnson County Weed and Pest Board has aggressively purged 3,200 acres of saltcedar in the Powder River drainage. In 2010, the Sheridan County Weed and Pest Board went on the saltcedar fight, too. Both counties, along with the Iberlin Ranch in Campbell County, have received cost-share help for their saltcedar control from Game and Fish.

But there is a bright side.

"Saltcedar seems to have an elevation threshold," Altermatt says. "It doesn't grow above 7,000 feet or thereabouts."

Some stream banks in Arizona look like saltcedar jungles. The infestation got the attention of Congress in 2006 with the passage of the Salt Cedar and Russian Olive Control Demonstration Act. Entomologists have imported Old World beetles to eat saltcedar with fair success in Colorado and Utah.

Altermatt would love to learn of some Old World magic to purge saltcedar. But until then, he and his colleagues will keep fighting the good fight with their laborious but proven attack.