

Wildlife Express!

Volume 20

Issue 8

April 2007

Idaho's Invasive Species



Carrie Benefield © 2001 CDEA



Purple Loosestrife

Purple loosestrife is a beautiful plant – or so it seems. It is actually a harmful wetland plant native to Europe and Asia. It was brought to the eastern United States in the early 1800s. People planted it in their gardens. Purple loosestrife has a tall stalk of purple flowers that bloom in mid to late summer. Over the years it has earned some nicknames - beautiful killer, marsh monster and purple plague.

Soon after coming to the United States, purple loosestrife started to spread into natural areas. By 1830, it was found all along the New England coast. The building of canals allowed the plant to further spread. Now it is found in 48 states. In some areas, it grows very densely. Scientists have counted up to 20,000 seedlings in just one square meter! A meter is a little bit over three feet.

In Europe, purple loosestrife is not invasive. Many insects feed on it and keep it under control. None of these insects live in North America. This is one reason why the plant has spread so quickly. Another reason purple loosestrife has spread so quickly is because of the amount of seeds it produces. Each mature plant produces 2.5 million seeds each year! The seeds are carried by moving water and dispersed across the entire watershed. Seeds also spread by wind, rain, cars, animals and humans. Just about anything can move the small seeds around. They are as small as a grain of pepper. The plant can also spread from stem pieces and roots.

As purple loosestrife invades a wetland, it crowds out native plants. Cattails, bulrushes and grasses can't compete. This reduces the food and cover available to wildlife, so they leave. The healthy balance around the wetland is destroyed. Purple loosestrife chokes the life out of a wetland under a sea of beautiful purple flowers.

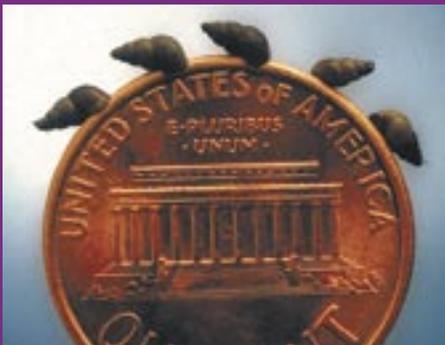


Carrie Benefield © 2001 CDFA

New Zealand Mudsnail

The New Zealand mudsnail was first discovered in Idaho. It was found in the Snake River in 1987. This invader made its way to Idaho in trout eggs shipped from New Zealand.

New Zealand mudsnails can multiply and expand quickly. They can stick to just about anything and hide in mud stuck to fishing waders, tackle, and boats. They are so small that it is difficult to see them. In some parts of the Snake River, over 100,000 snails are now found in just one square meter. They have spread to the states of Washington, Oregon, Montana, and Wyoming. They have even been found in one of our nation's most cherished national parks – Yellowstone. In the Madison River in Yellowstone National Park, they outnumber all native crustaceans.



These snails have a unique way to survive being eaten. They have a “trap door” in their shells. When a bird or fish eats them, they close the door and pass right through the digestive system. They are not harmed at all! The predator may feel full, but it will get no nutrition from a New Zealand mudsnail.

Scientists are not sure what affect New Zealand mudsnails will have on fish populations. But one thing is for certain, New Zealand mudsnails can change an area forever.

Leafy Spurge

Leafy spurge was brought to the United States in about 1897 from Europe or Asia. It is now found throughout the West.

Leafy spurge is a plant to stay away from. It can do some serious harm. All parts of the plant contain a milky, sticky substance. It can cause blisters on your skin. If you rub it into your eyes, it may cause permanent blindness! It's best to not even touch this plant.



© 2001 CDLE

Leafy spurge has some amazing adaptations for survival. Its roots may grow 20 feet down in the soil! The plant can spread by both seeds and creeping roots. In midsummer, the plants are tipped by several pairs of showy, yellowish-green, heart-shaped bracts. The bracts enclose small yellow flowers. After the seeds are developed, a hard capsule forms around them. This capsule explodes when touched. Seeds can be thrown as far as 15 feet!

There is one animal that can eat leafy spurge – goats. The milky substance inside the plant doesn't seem to hurt goats. In some places around the state, herds of goats are used to help control leafy spurge. They help control the spread of leafy spurge, but no goat can eliminate it completely.

Bullfrog

Are bullfrogs invasive? They are in the West. Bullfrogs are native to the eastern part of the United States but not the West.

Bullfrogs were introduced to the West in the 1880s. They were grown in ponds and streams and sold to markets and restaurants. Some people consider bullfrog legs tasty treats. Some frogs escaped their ponds and others were released into the wild. Bullfrogs are now often heard throughout the West on warm summer nights.

Bullfrogs don't have as many predators in the West. Snapping turtles, pike fish and water snakes help to control their numbers in eastern states. Without these predators, bullfrogs are thriving.

Bullfrogs are big frogs. Sometimes they can grow to eight inches! They have an appetite to match their large size. If a bullfrog can fit something in its mouth, it will eat it. Other frogs, fish, insects, mice, birds, and snakes are just some of the animals bullfrogs will eat. Bullfrogs out compete native frogs for food, and our native frogs become bullfrog food. In some western states, like Arizona, bullfrogs are a huge problem. They are thought to be one reason why some native frogs are becoming harder to find.



Puncturevine

Have you ever been riding your bike along a dirt trail and gotten a flat tire? If you found a sharp pointed burr in your tire, you probably rode across puncturevine, also known as goatheads.

The puncturevine plant is actually kind of pretty with bright yellow flowers, but the fruits, or burrs, are not. The burrs are round and divided into five sections. Each section contains two to four seeds and has two large spines sticking out of it. These burrs are so tough even light truck tires can be punctured by them. You sure don't want to step on one!

Puncturevine is native to Europe. People think that sheep brought over from the Mediterranean region had puncturevine burrs stuck in their wool, and this started the spread of the prickly plant. Puncturevine was first reported in California in 1903. Now it is found throughout the United States, except in the northern states from Montana to Maine. It is most often found on sandy, dry or gravelly spots.

One reason this plant is successful is because it doesn't take the plant long to make seeds. From the time the plant sprouts to the time it flowers and makes seeds is just two to three weeks. That's fast! Freezing weather will kill the plant, so it must produce as many seeds as it can as quickly as it can. The seeds can also sit and wait for the best time to sprout. Puncturevine seeds can sprout up to 20 years after falling out of the burr.

One way to try and control invasive plants is to introduce the insects that eat them. This has been done with puncturevine. Two different beetles, called weevils, eat puncturevine in Europe. One

weevil lays its eggs in the burrs. When the eggs hatch, the weevil eats the seeds. Another type of weevil eats the stems. In 1961, weevils were taken out of Italy and brought to California and Nevada. The weevils have done well in controlling puncturevine in warmer climates, but not so well in colder climates. Cold weather will kill the weevils. They came from a warm, mild habitat, so they do best in habitats with similar climates. Weevils have worked well in Texas, Nevada, California and Oregon. Do you think they would work well in Idaho?

Look out for puncturevine while riding your bike. You sure don't want to get stuck with a flat, and keep those shoes on. This plant might make you scream!



European Starling

Eugene Schieffelin is responsible for bringing the European starling to the United States. In 1890 and 1891, he released about 100 birds into New York's Central Park.

Why did he release starlings? Mr. Schieffelin belonged to a group called the Acclimation Society of North America. This group believed moving plants and animals around the world was all right and might even be good for the planet. Now, of course, we know differently. Moving plants and animals out of their natural habitats is not a good idea. Mr. Schieffelin said he wanted to bring all the birds mentioned in the writings of William Shakespeare to America. The only time Shakespeare mentions starlings is in the play *King Henry IV, Part 1* (Act 1, scene 3) - "Nay, I'll have a starling shall be taught to speak nothing but 'Mortimer'."

We now have over 200 million starlings in the United States. Starlings are intelligent birds and have done well. Unfortunately, some of our native birds have suffered. Starlings like to lay their eggs in holes in trees. Starlings can't make the holes themselves. They need to find the holes that other birds have made. Woodpeckers, bluebirds and tree swallows are just some of the birds starlings compete with for nesting sites. Often starlings will destroy eggs or young birds to get a nesting site. Starlings also lay their eggs in man-made structures. Nests have been found in barbeques, sheds and flower pots.

Starlings are also pests to farmers. In the winter, they form large flocks. These flocks can damage farmers' crops. Starlings will eat strawberries, blueberries, grapes, tomatoes, peaches, apples, and cherries. They also eat livestock feed and will pull up newly planted seeds.

Just think all these problems started with one man and 100 birds!

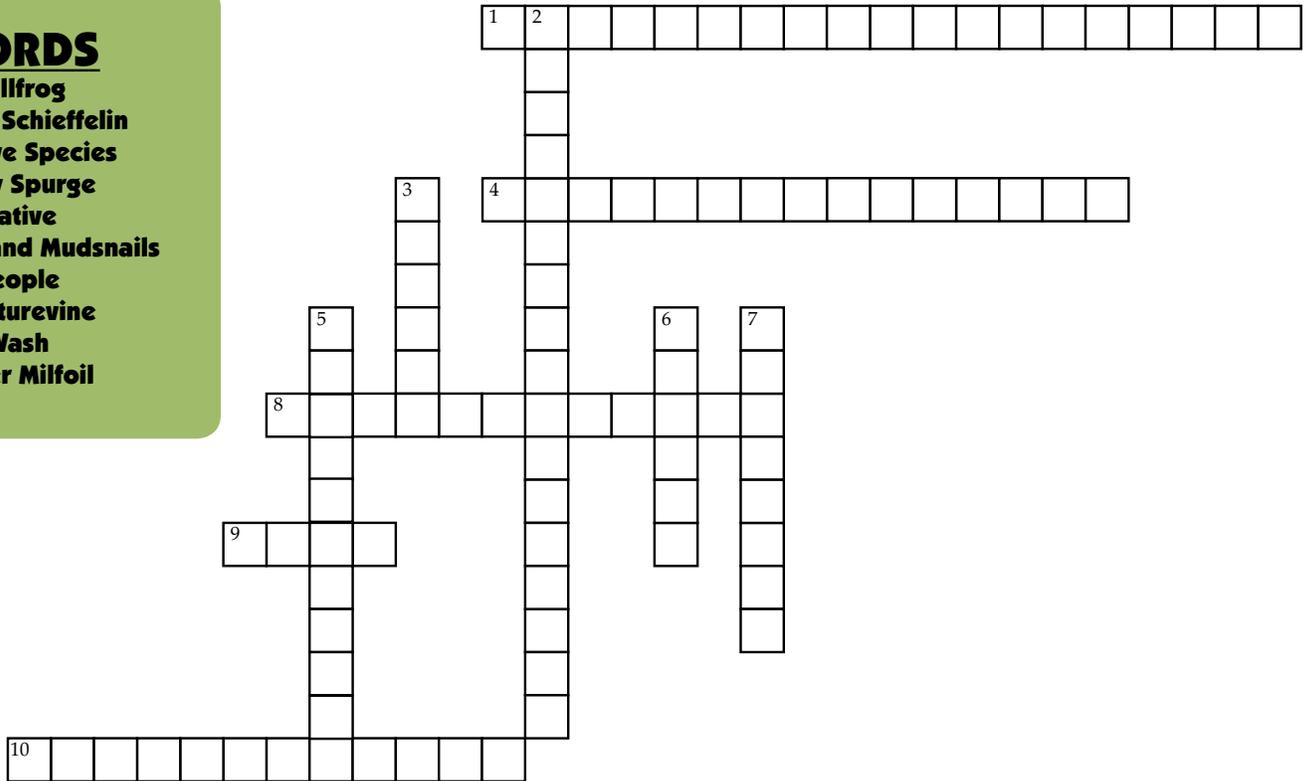
George W. Robinson © California Academy of Sciences



Criss-Crossing Invasive Species

WORDS

Bullfrog
Eugene Schieffelin
Invasive Species
Leafy Spurge
Native
New Zealand Mudsnails
People
Puncturevine
Wash
Water Milfoil



Across

1. These found their way to Idaho in trout eggs.
4. These are non-native species that cause harm to the environment.
8. This plant chokes waterways, so boating is difficult.
9. You should do this to all fishing waders and tackle after you use them.
10. This will could cause a bike flat tire.

Down

2. This man introduced European starlings to the United States.
3. We should be planting these types of plants in our yards.
5. This plant may give you blisters if you touch it.
6. They bring invasive species into ecosystems.
7. A large frog native to the eastern United States that is harming our native frogs.

WILDLIFE EXPRESS

Volume 20 • Issue 8 • *Invasive Species* • April • 2007

Wildlife Express is published nine times a year (September-May) by the Idaho Department of Fish and Game. Classroom subscriptions and an Educator's Guide are available for \$30.00 per year and includes a classroom set of 30 copies mailed to your school each month. Subscriptions of five copies or less are available for \$15.00. This publication is made possible through the sale of wildlife license plates.

Wildlife Express is also available on the Idaho Department of Fish and Game website at no charge at <http://fishandgame.idaho.gov>

For more information, call or write: *Wildlife Express*, Idaho Department of Fish and Game, 600 South Walnut, PO Box 25, Boise, Idaho, 83707
(208) 287-2890.

Lead Writer: Adare Evans

Layout: Eric Stansbury • Sandy McBride

Contributors: Renai Brogdon • Cristina Watson • Lori Adams • Kelsey Sherich • Vicky Runnoe



WE WOULD LIKE TO HEAR FROM YOU !

If you have a letter, poem or question for *Wildlife Express*, it may be included in a future issue! Send it to the address printed above!