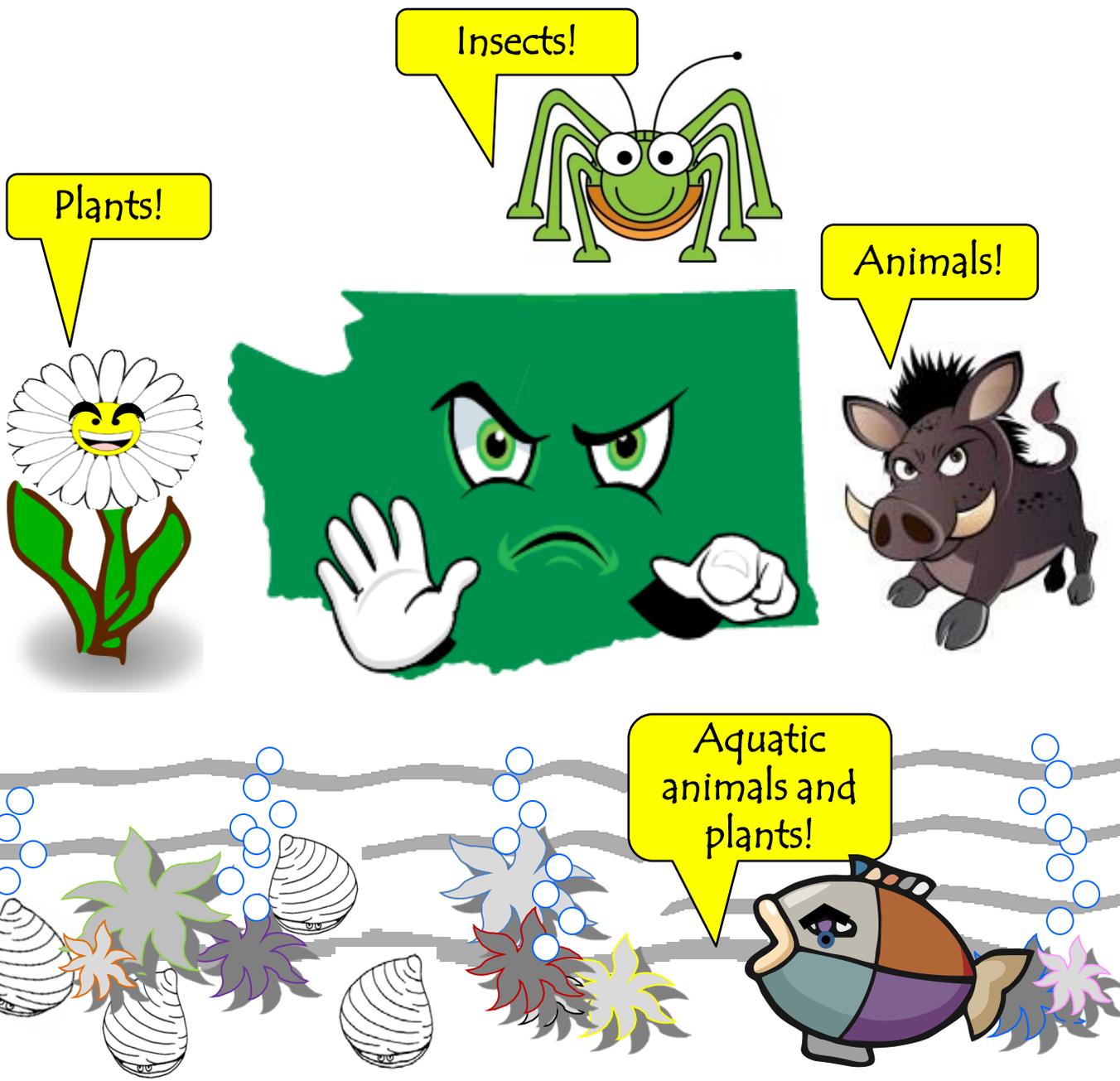


Washington is Under Attack!

Learn About Invasive Species That Threaten the State You Love
(and have fun doing it!)

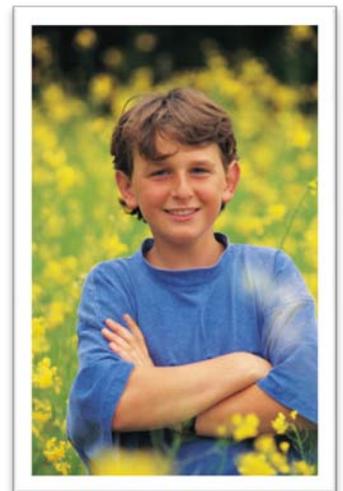


Kids Are The Future!

The Washington State Department of Agriculture (WSDA) works closely with the United States Department of Agriculture (USDA) to search for and manage invasive species in our state.

We believe that education is the most important tool in combating this devastating problem, and have learned that **letting kids know about protecting the natural world** leads to surprisingly good results, both now and in the future.

With that in mind, we offer this booklet.



What Is An Invasive Species?

Animals, plants and microorganisms (such as viruses and germs) are considered **invasive** when they are both *non-native* to the ecosystem in which they are found and *cause environmental, economic, or human harm*.



A VERY invasive species!



Invasive species can act like bullies to native species!

When an invasive species is brought into a new place, it can cause **native species**, the ones that have been there for a long time, to die out. Invasive species might eat all of the native species' food, crowd the natives out, or bring in diseases that kill native species.

Sometimes it takes a long time for people to realize that an invasive species is up to no good. Often, by the time we know something bad is going on, invasive species have made themselves at home, and getting rid of them is almost impossible.

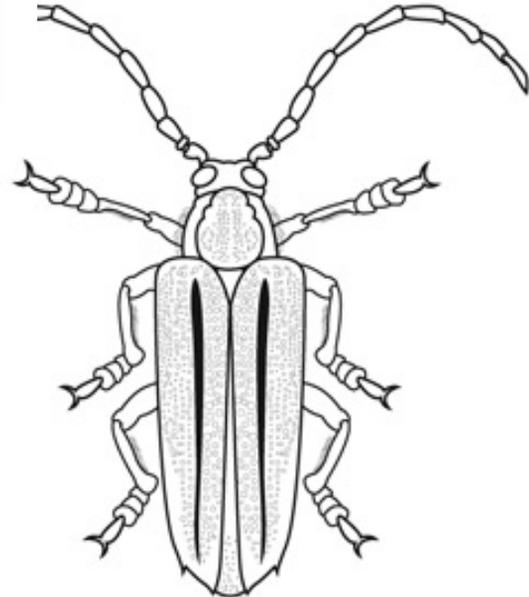
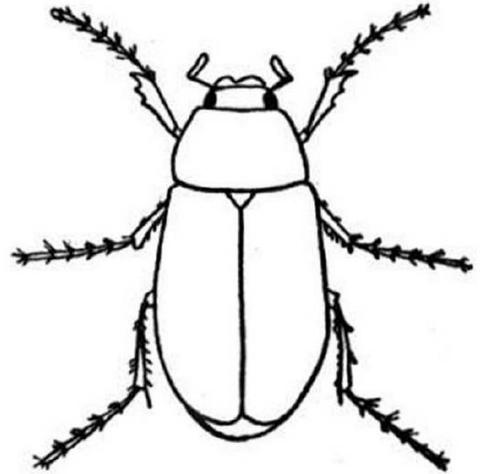
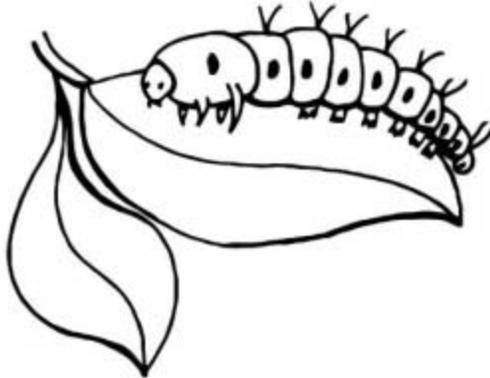
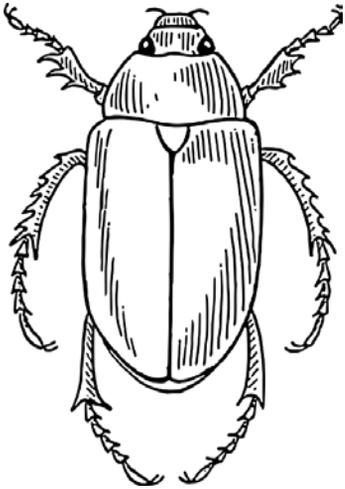
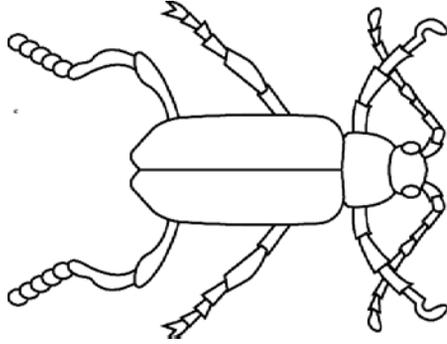
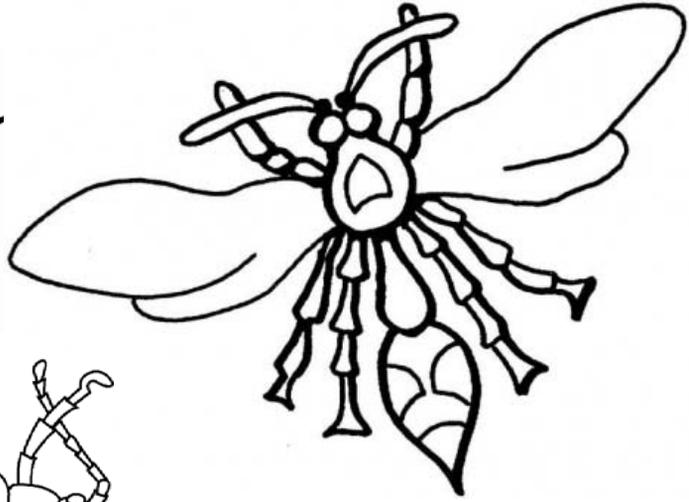
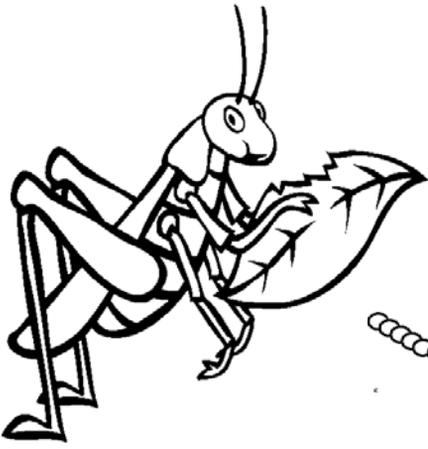
Invasive species can be plants, animals, and microorganisms such as viruses and bacteria.

A Few of the Worst Invasive Species that Threaten Washington!



Wouldn't it be nice if we could just lock invasive species up and throw away the key?

INSECTS!

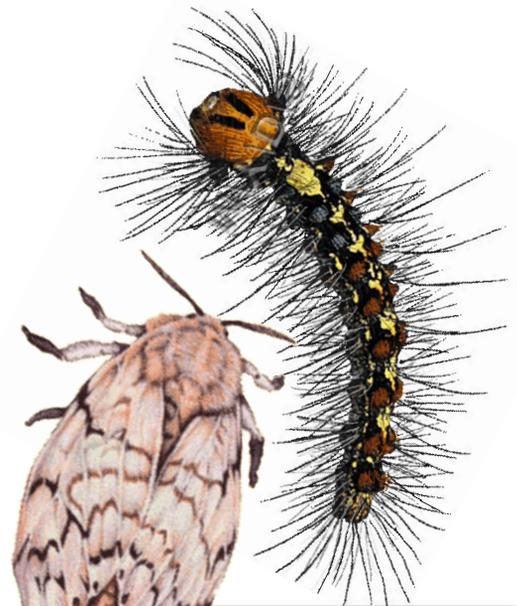


Give these pests some color!

Gypsy Moth (GM)

Leaf-munching GM caterpillars feed on over 500 different kinds of trees and plants. During a big outbreak, millions of caterpillars can kill whole forests!

Gypsy moth **egg masses** are moved on vehicles, outdoor toys and play sets, lawn furniture and firewood.



Look at the crazy antennae on these male GM!



People who travel anywhere where gypsy moths live should check for fuzzy brown egg masses on their **vehicles** and **outdoor equipment**.

All **firewood** needs to be examined carefully for GM egg masses.



Female GM depositing a tan, fuzzy egg mass. Each egg mass can contain 500 eggs!

How many gypsy moth egg masses can you find in this picture?

 = an egg mass



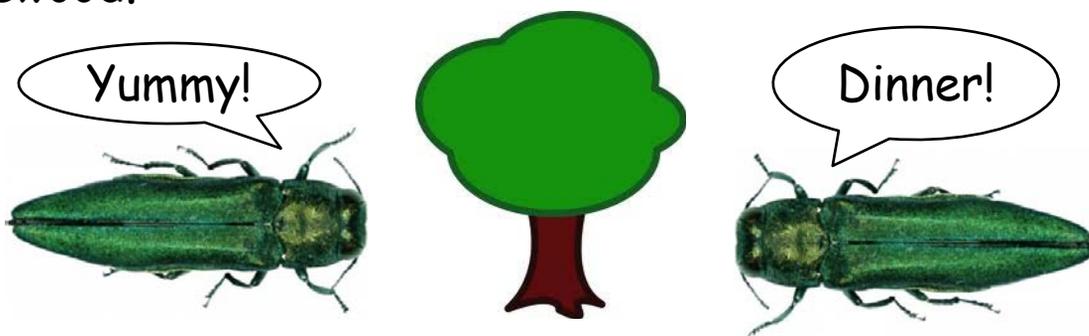
There are 18 GM egg masses in the picture.

Emerald Ash Borer (EAB)

EAB, a beetle from Asia, kills North American ash trees. Since it was brought to the U.S. in the 1990s, it has spread to 14 states and killed at least 50 to 100 million trees.

Ash trees line the streets of Washington cities and towns. If EAB kills them, we would not only lose wonderful shade that keeps us cool in the summer - we would lose beautiful trees that make our neighborhoods nice places to live.

Like gypsy moths, EAB is frequently moved in firewood.



Word Scramble!

Unscramble the words below for the best advice to keep EAB from spreading to your trees.

NOD'T

			'	
--	--	--	---	--

VEOM

--	--	--	--

IFOEROWD

--	--	--	--	--	--	--	--

!

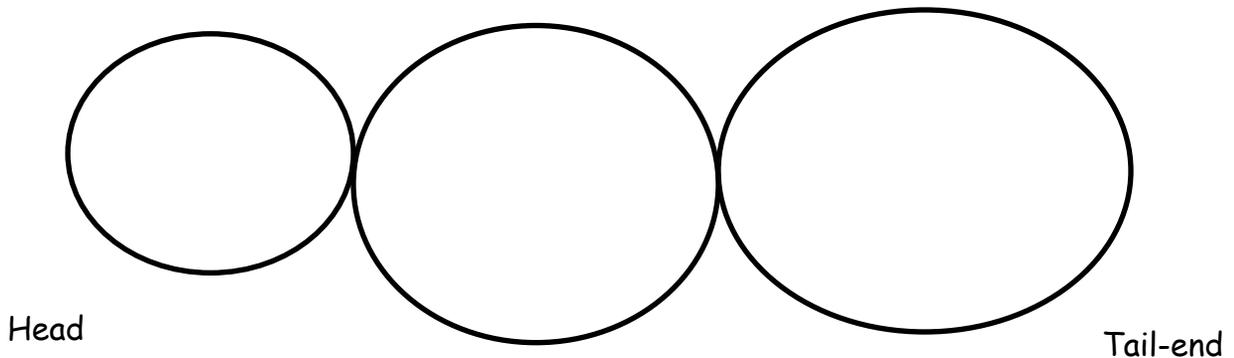




Color this Emerald Ash Borer!
(Hint: What color are emeralds?)

Design Your Own Invasive Insect!

Design and color your own Invasive Insect below. We have drawn the basic head, thorax (chest) and abdominal shapes to get you started:



Hint: Insects need 6 legs, 2 antennae, a mouth and wings. And don't forget those buggy eyes!

Let's pretend! Make up your own funny answers to the questions below!

Where did your bug come from? What is its name?

What does your invasive bug like to eat?

PLANTS!



Canadian Thistle



Spotted Knapweed



Oxeye Daisy



Common Tansy



Orange Hawkweed

Cheatgrass



Here in Washington, **cheatgrass**, an invasive plant from Europe, has crowded out many native grasses in our rangelands and pastures. It causes weed problems in wheat, and contributes to wildfires. It's even dangerous for our pets and wildlife, especially dogs, as its prickly seeds can work their way into skin, paws, noses and ears! People can get stuck, too.



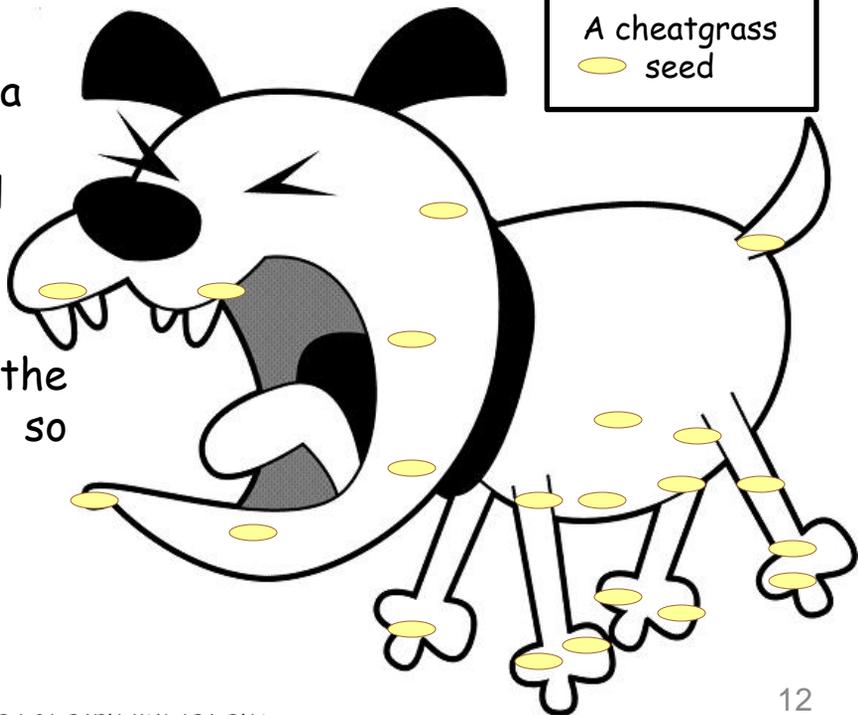
Help Rascal!

Poor Rascal was playing in a field and now has nasty cheatgrass seeds stuck all over his tummy, legs, face and paws.

Circle the seeds to help the veterinarian find them so she can remove them.

How many did you find?

OUCH!



Goathead Weed (Puncturevine)

Originally from Europe, goathead weeds are designed to survive! In the right conditions, a goathead seed can last 20 years, waiting for the right conditions to grow.

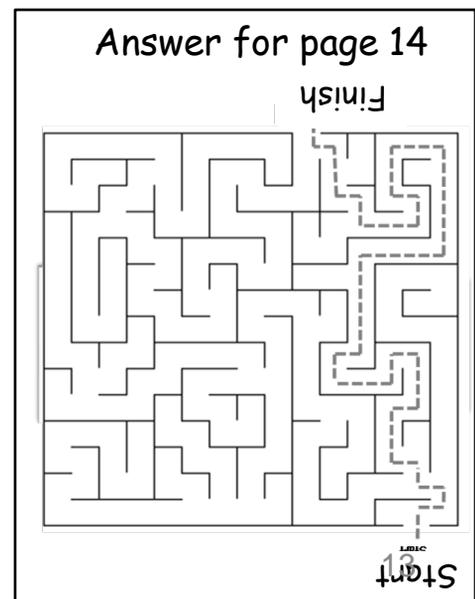


Goathead produces sharply pointed burs that stick painfully in bare feet (ouch!) and can puncture bicycle tires. Even light truck tires can be punctured by these nasty seeds!



Take a look at the tiny burr from a goathead bur. Can you see why the plant was named "goathead" weed?

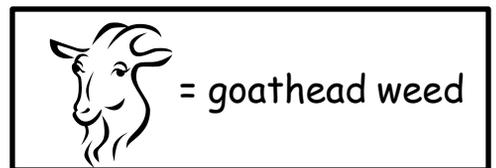
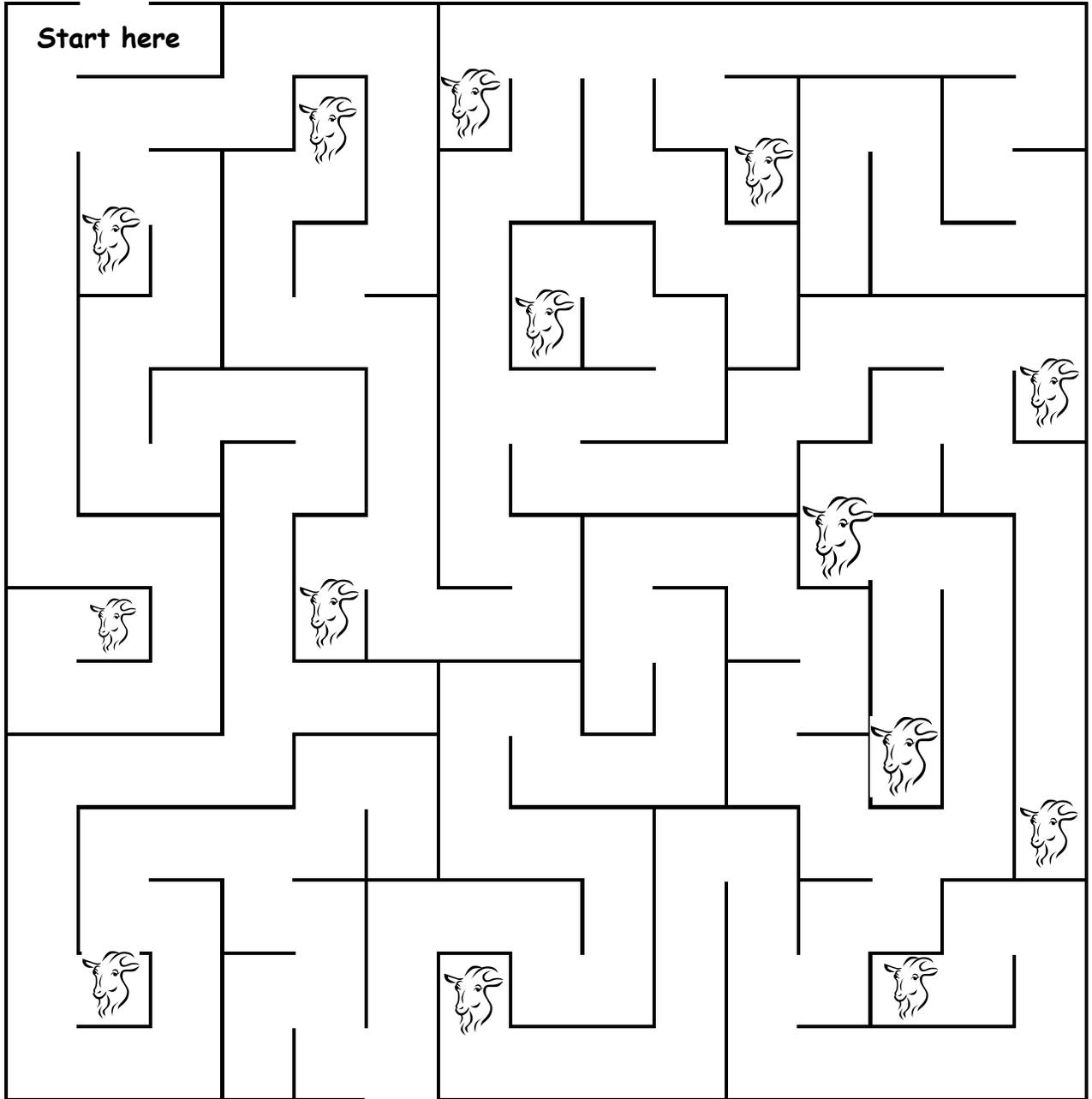
Draw your own version of a goat's face on the picture!





The Goathead Trail

Mr. Smith wants to ride his bike to the candy store, but the trails are full of goathead weeds that could puncture his tires. Help guide him there safely!



Japanese Knotweed

This plant was brought from Asia in the 1800s because it is so pretty around homes and gardens, and because it prevents soil erosion. Cows and sheep like to eat it.



However, Japanese Knotweed can also be a bully, taking over areas that native species need to survive. Its strong root system can even damage buildings and roads.

Surprisingly, some people get even with Japanese Knotweed for all the bad things it does by eating it! They bake it, steam it, make it into soup, and even use it to make pies!

How do you think Japanese Knotweed pie would taste? (circle one answer).

Good!



Bad!



Quagga and Zebra Mussels

Zebra and quagga mussels were brought to the U.S. in the 1980s. They are now found in several western states (but so far not in Washington!).

Mussels can occur in huge numbers, using up nutrients in the water that native aquatic plants and animals need. They attach to almost everything - aquatic plants, submerged sediment, and all kinds of surfaces, such as piers, pilings, water intakes, and boats, making a terrible mess!



To keep these nasty pests from fouling Washington's beautiful waterways, tell every boater you know to:

CLEAN - Any visible mud, plants or animals from your boat.

DRAIN - All water, including from the lower outboard unit, ballast, livewell, etc.

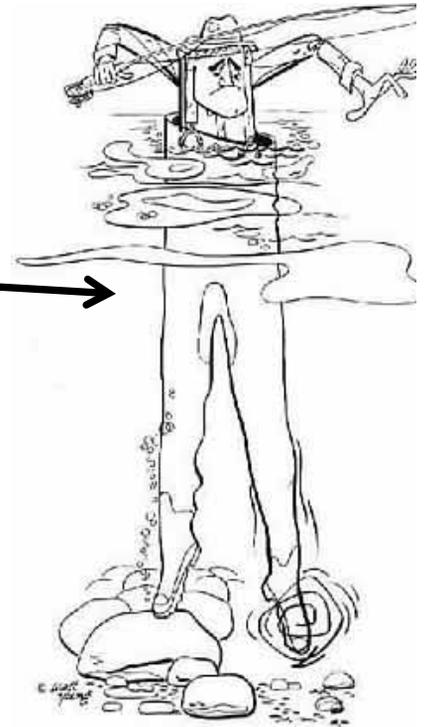
DRY - All areas of your boat and equipment.

Please pass it on: People should always check their boats for invasive mussels after being in the water.



Did you know that each quagga mussel can filter up to one liter of water in one day? That's one thirsty mussel!

Just for fun: Draw something below that should be checked for invasive critters after a water outing - the funnier the better! (Example: Grandpa's leaky old waders)



Eurasian Watermilfoil (EWM)

EWM is an invasive water plant from Asia and Europe. EWM can be spread on boats and other water equipment. It can outgrow almost every water plant and takes over lakes and streams quickly. EWM is hard to get rid of, and very costly to manage.



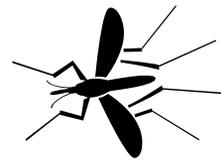
Give Mr. Jones some good advice!

Mr. Jones loves to take his boat all over Washington to fish. What advice can you give Mr. Jones to keep him from moving Eurasian watermilfoil and other aquatic weeds to waterways throughout Washington?



(Write your answer below.)

West Nile Virus



West Nile virus is a disease spread by **mosquitoes**. It was first found in Africa in 1937, and had spread to the U.S. by 1999. Researchers believe the West Nile virus is spread when a mosquito first bites an infected bird and then bites a person.

The best way to prevent West Nile virus infection is to avoid mosquito bites.

Use mosquito-repellent products. Wear long sleeves and pants. Drain pools of standing water, such as trash bins and plant saucers since mosquitoes breed in stagnant water.

Multiple Choice!

Maria loves to play outside but there are lots of mosquitoes where she lives. What can she do to help prevent bites? *Choose the best answer.*



- Wear long sleeves and pants and use mosquito-repellant products.
- Wear polka dots to confuse the bugs.
- Disguise herself as a tree before going out.
- Make her little brother go out first so the bugs get full.

The Special Problem of Firewood

Tree-killing insects and diseases can lurk in firewood. When people move firewood these pests go wherever it is taken where they can destroy our forests.

A solution:

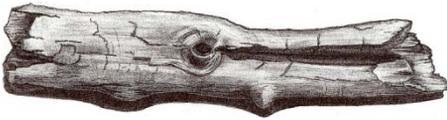
Always buy firewood near the place that you will use it; never haul it long distances. Be sure to burn all the wood you buy completely before leaving your campsite; never take it with you.



Make the Best Choice!

The silly Cooper Brothers have just set up camp and need some firewood for the night.

Help them pick the best firewood by circling the best choice:



A. Firewood they brought from home, 200 miles away.



B. Firewood they buy from a nearby local source.

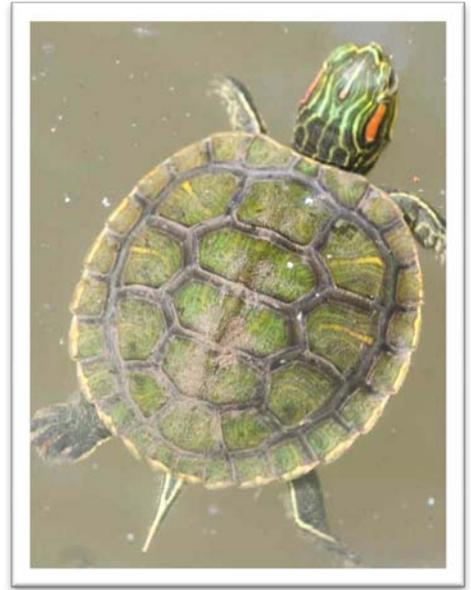


C. Leftover firewood they brought with them from their last campsite a day's drive away.

To learn more (and for some fun games and videos), visit: www.dontmovefirewood.org

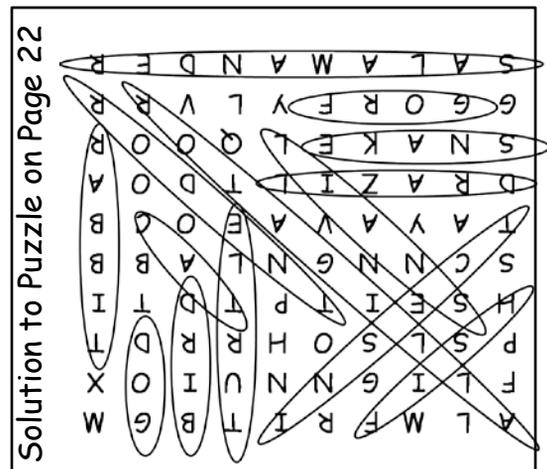
The Red-Eared Slider and Other Pets

Nothing is cuter than a baby turtle, especially a **red-eared slider**! Many people buy them from pet stores when they are young and easy to care for, but as the turtles get bigger, the owners find themselves unable to keep up with their care.



Sometimes owners release unwanted turtles and other pets into woods, ponds and streams. However, most pets, like red-eared sliders, are not native to Washington and they can become invasive, driving out native species who belong here!

NEVER release a pet into the wild, whether it is a turtle, a snake, a bird, a fish, a cat, a dog or any other kind of animal. It's not only cruel (many pets cannot survive) but could damage wild areas forever!



Word Find! Animals That Should NEVER Be Released in Washington



A L M F R I T B G M
 F L I G N N U I O X
 P S L S O H R R D T
 H S E I T P T D T I
 S C N N G N L A B B
 T A Y A V A E O C B
 D R A Z I L T D O A
 S N A K E L Q O O R
 G G O R F Y L V R R
 S A L A M A N D E R

- | | |
|-----------|------------|
| Fish | Salamander |
| Insect | Cat |
| Lizard | Dog |
| Rodent | Bird |
| Rabbit | Snake |
| Frog | Turtle |
| Alligator | Snail |

Circle the words above from the box at the left that describe kinds of pets that should NOT be released into Washington's wildlands.

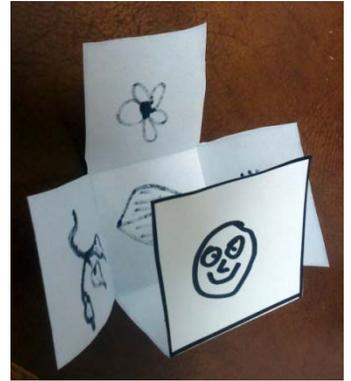
Words can be vertical, diagonal or horizontal, and backwards or forwards.

Make Your Own Invasive Species Picture Cube!

1. Draw and color pictures of invasive species you've learned about in each square.



2. After you finish your pictures, use scissors to cut out the entire shape in one piece. *Ask a grownup if you need help.*



3. Fold to make a cube with your pictures on the outside.

4. Shape the folded paper into a cube and tape the edges closed with clear tape.



5. ENJOY!

A Not-So-Secret Message

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
			18	1				14		11				22											3

K E E I I E E I E
 11 1 1 7 14 21 17 10 23 14 17 1 23 7 1 14 1 23
 O O W I T O
 22 25 20 22 8 3 10 23 15 14 21 15 25 22 21

Can you figure out the secret message above? Use the hints provided. Once you do figure it out, share it with everyone you know!

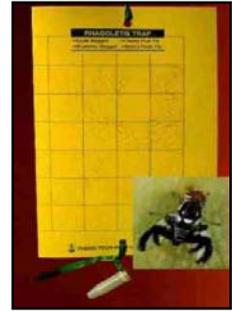




Japanese Beetle Trap



Citrus Longhorned Beetle



Apple Maggot Trap



Gypsy Moth Trap

Look, but don't touch traps!

Every year the Washington State Department of Agriculture's (WSDA) Pest Program tries to catch insects, bugs or other pests that could hurt the food we grow on farms, the trees in our parks, or our forest lands.

The traps we use are just meant to let us know which pests are around, not to kill them.

During the Summer, we might place as many as 45,000 insect traps all around the state of Washington!

If you see one of our traps, look all you like, but please don't touch them!

Questions?

Visit our website at www.agr.wa.gov or call us at 1-800-443-6684



Special thanks to Jodie Ellis, Idaho Dept. of Agriculture, and IDSA's Invasive Species Council for allowing WSDA to copy and change their booklet for Washington state kids.