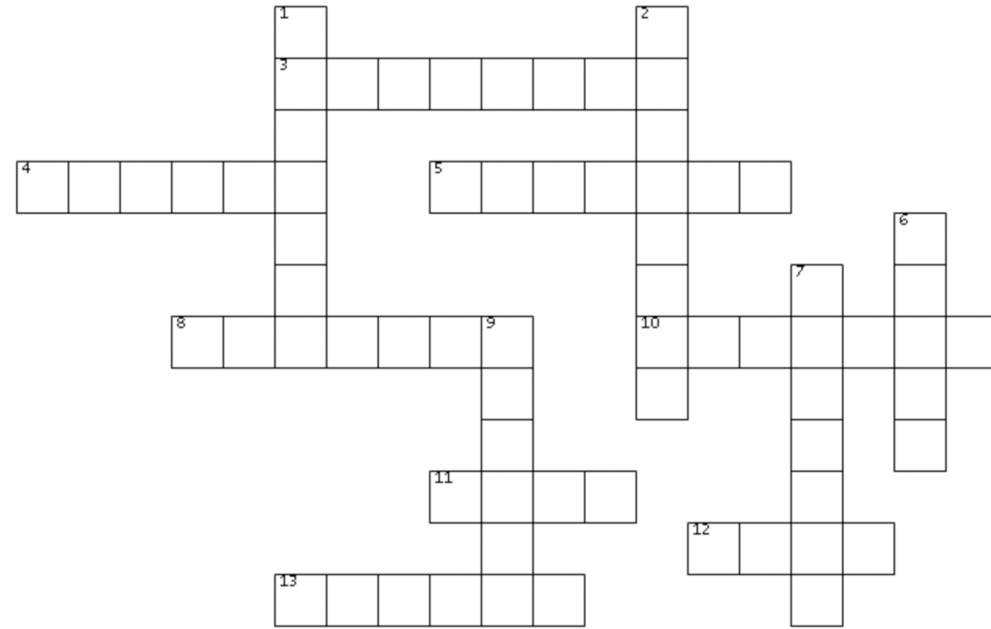


AQUATIC INVASIVE SPECIES FACTS

- An invasive aquatic plant called Eurasian Milfoil is able to clone itself when parts break off! That is how it spreads so quickly.
- Goldfish find the water conditions of the Okanagan perfect. **NEVER** release pets into the wild. Remember: **"Don't let it loose"**.
- Female Zebra Mussels, Quagga Mussels, and Invasive Clams can produce up to **ONE MILLION** eggs in a single year!
- These eggs quickly develop into microscopic larvae called veligers (vel-E-jers). They are smaller than the period at the end of this sentence.
- Quagga Mussels are named after an extinct species of Zebra.
- Zebra and Quagga Mussels can filter 1 litre of water per day.
- Zebra and Quagga Mussels can live without food for **ONE YEAR!**

CROSSWORD



ACROSS

3. The region that we live in!
4. A type of thread that mussels use to attach themselves to surfaces.
5. The water that ships use to weigh themselves down.
8. A native species of salmon found in the Okanagan.
10. The microscopic larvae of clams and mussels.
11. A structure that boats use.
12. The place that Invasive Clams came from.
13. A type of mollusk with a hinged shell.

DOWN

1. The group of animals that clams, mussels, snails, and octopuses belongs to.
3. An animal or plant that invades an ecosystem.
6. A hard, protective casing on an animal.
7. An invasive aquatic plant species that spreads by cloning.
9. One of the places that Zebra and Quagga mussels came from.

Answers on the next page.

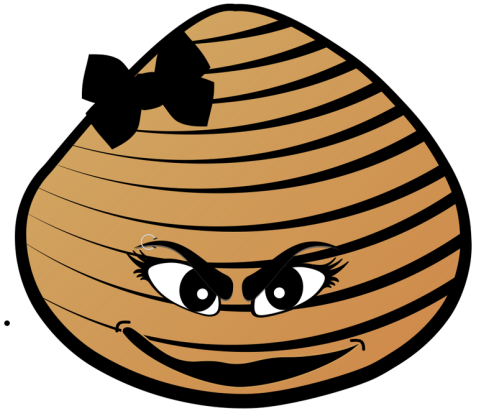
ZEB'S PERFECT PLAN

One day, Zeb and Quag decided they would _____
 _____ Lake. It was a _____ plan. They got
 their _____ together and _____ on a boat
 heading to _____. Along the way, the boat
 stopped at _____ lakes, and each time a few of
 Zeb and Quag's family would _____ off. It wasn't
 long before Zebra and Quagga Mussels had _____
 into many of the lakes in _____. When the boat
 _____ at the BC border it had to go through a
 mussel check station. Zeb and Quag _____ their
 shells _____ to try and _____, but the
 _____ Mussel Defense Team found them!
 "_____" Zeb cried. "_____" Quag yelled.
 Their plan was _____. "We'll get you next time!"
 _____ Zeb as he was _____
 out of the _____.

Crossword Answers:
 Across 3. Okanagan, 4. Bypassal, 5. Ballast, 8. Kokanee, 10. Velliger, 11. Dock, 12. Asia, 13. Mussel
 Down 1. Mollusk, 3. Invasive, 6. Shell, 7. Milfoil, 9. Europe

MEET CLAMENTINE

Hey kid, my name's
 Clamentine. You
 already met my pals
 Zeb and Quag. I'm a
 mollusk just like them.
 I'm what's called an
Invasive Clam.



Me and my family arrived in BC a long
 time ago in the 1920s. We snuck onto
 boats leaving China and Japan, and we
 were released into Canada's cozy lakes
 and rivers. We haven't gotten into the
 Okanagan yet, but I'll hitch a ride on the
 first boat I see, as long as they don't
 "Clean, Drain and Dry".

WORD SEARCH

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

Algae Camping Drain Habitat OASISS Sand Sun Water

Beach Clean Dry Invasive Okanagan Ships Zebra Boat

Docks Milfoil Species Trailer Mussels Veliger Byssal Ballast

REVIEW

An **ADJECTIVE** describes something or somebody. Lumpy, soft, brave, messy, and short are adjectives.

A **VERB** is an action word. Run, pitch, jump, and swim are verbs. When a verb is **PAST TENSE** the words become ran, pitched, jumped and swam.

A **NOUN** is the name of a person, place, or thing. Sidewalk, umbrella, toy, bathtub, and nose are nouns.

An **ADVERB** tells us how something is done. It modifies a verb and usually ends in “ly”. Modestly, greedily, and carefully are adverbs.

A **PLACE** is any kind of place. A country (Canada), a city (Penticton), or a room (bathroom, kitchen).

An **EXCLAMATION** is any sort of funny sound, gasp, grunt, or outcry. Wow!, Ouch!, Ick!, and Gadzooks! are exclamations.

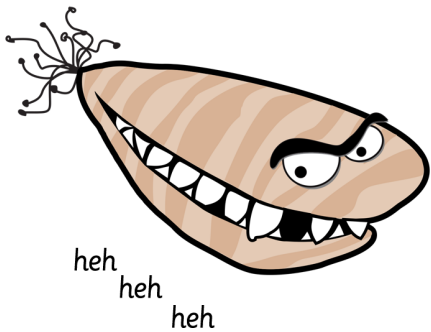
A **PLURAL** means “more than one”. For example, the plural form of “door” is “doors”.

QUAG'S SECRET CODE

A	B	C				G	H	I
1	2		4	5	6			

J			M	N			Q	
	11	12			15	16		18

S		U	V		X		Z	
	20			23		25		



Quag is using a secret code to hide information!

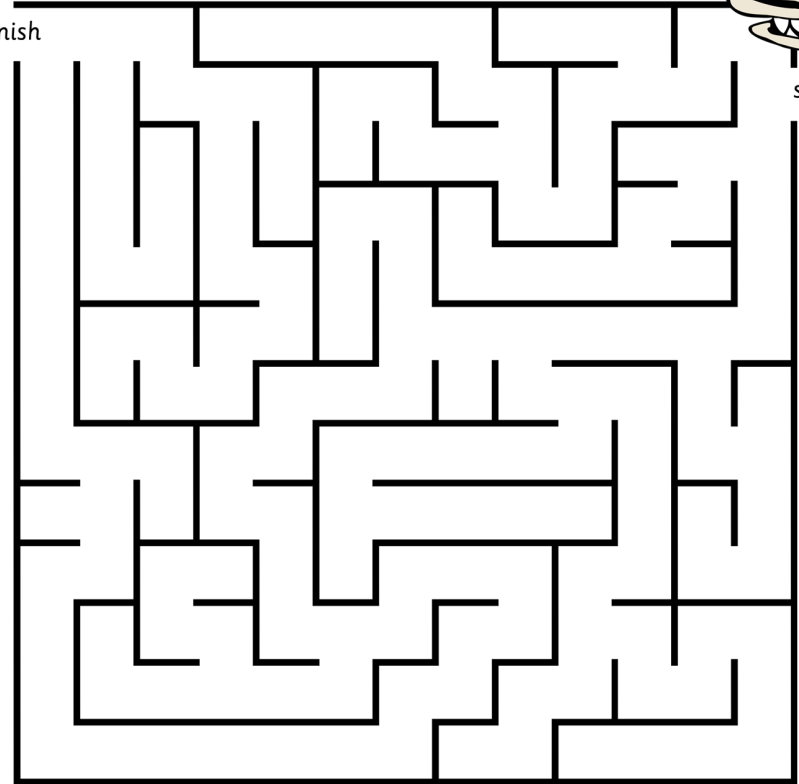
Crack the code to solve the puzzles on the opposite page.

STOP ZEB!



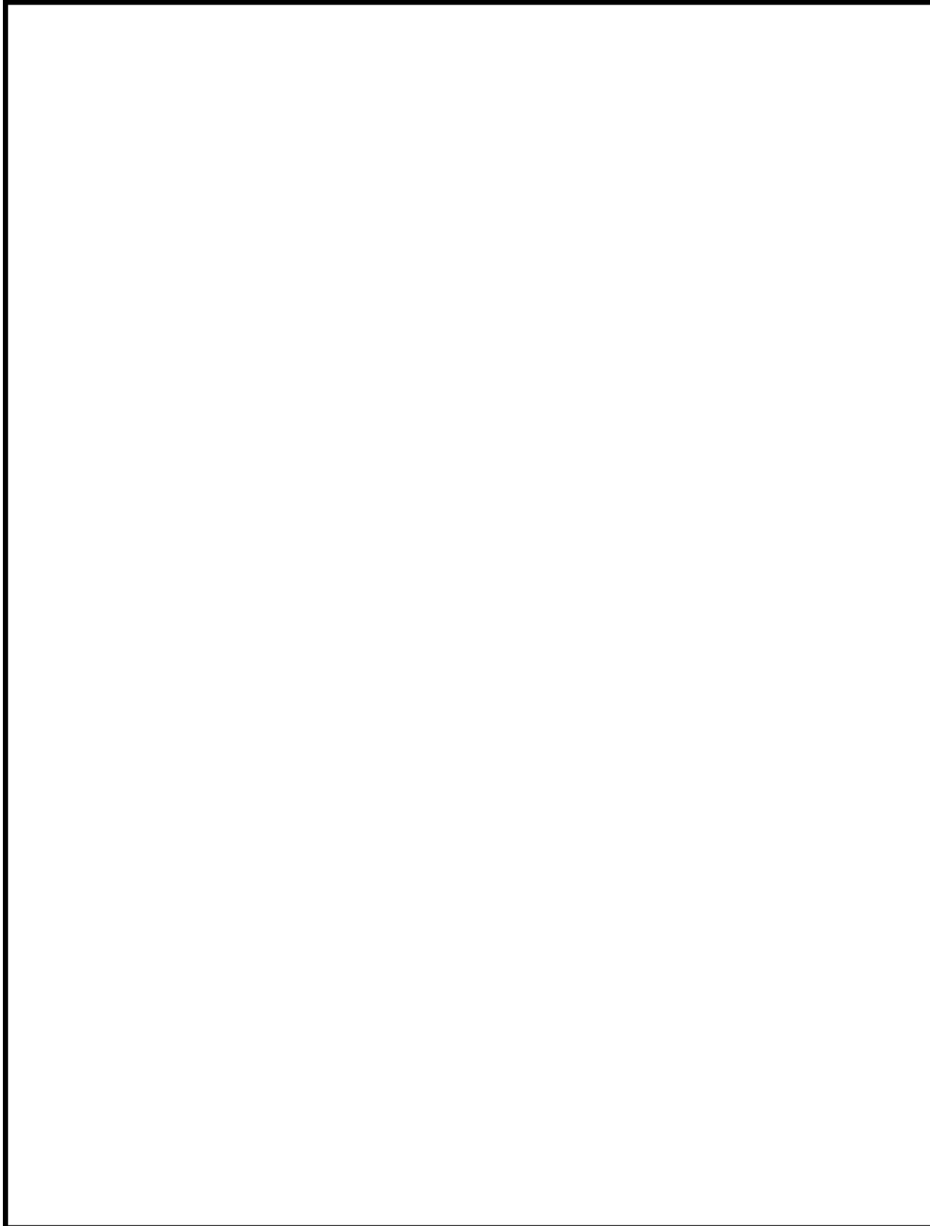
finish

start



Zeb is trying to escape into your favourite lake! Solve the maze to stop him.

DRAW YOUR FAVOURITE LAKE

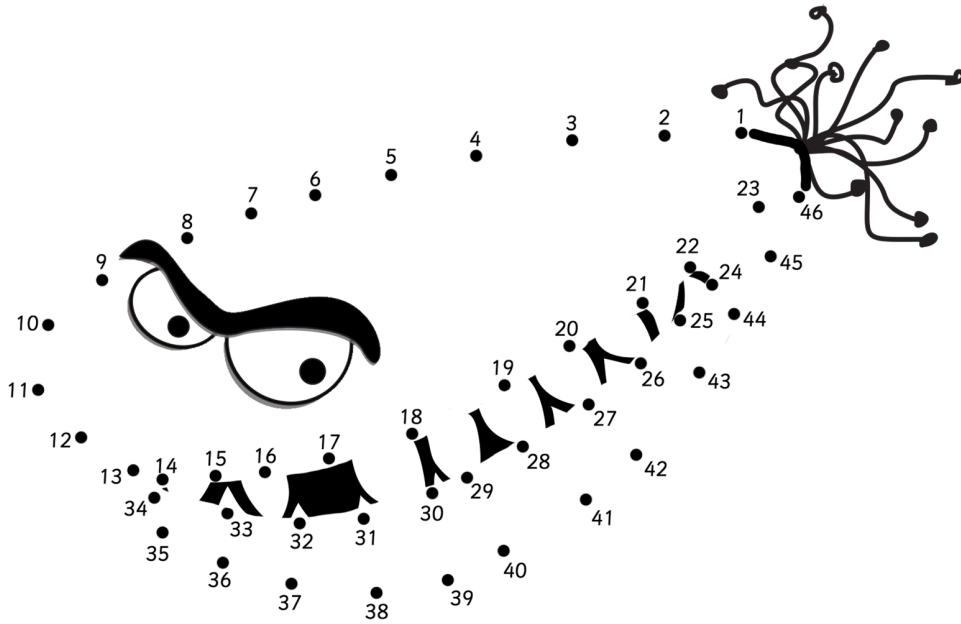


SOLVE THE RIDDLES

- $\frac{26}{5} \frac{2}{18} \frac{1}{1}$ and $\frac{17}{21} \frac{1}{7} \frac{7}{1} \frac{13}{21} \frac{19}{19} \frac{5}{12} \frac{19}{19}$ are mollusks that are unwanted in BC.
- Invasive mussels arrived in North America as stowaways in the $\frac{2}{1} \frac{12}{12} \frac{1}{19} \frac{20}{20}$ water of ships.
- Invasive mussels have no natural $\frac{16}{18} \frac{5}{4} \frac{1}{20} \frac{15}{18} \frac{19}{19}$ in Canada to control their $\frac{16}{15} \frac{16}{21} \frac{12}{1} \frac{20}{9} \frac{15}{14} \frac{19}{19}$.
- Young mussels are smaller than a grain of sand and called $\frac{22}{5} \frac{12}{9} \frac{7}{5} \frac{18}{19}$.
- Invasive mussels have $\frac{2}{25} \frac{19}{19} \frac{1}{12} \frac{20}{8} \frac{18}{5} \frac{1}{4} \frac{19}{19}$ that let them attach to hard surfaces.
- $\frac{16}{18} \frac{5}{22} \frac{5}{14} \frac{20}{20} \frac{9}{14} \frac{22}{1} \frac{19}{9} \frac{22}{5} \frac{13}{21} \frac{19}{19} \frac{5}{12} \frac{19}{19}$:
 $\frac{1}{12} \frac{23}{1} \frac{25}{19} \frac{3}{12} \frac{5}{1} \frac{14}{14}$, $\frac{4}{18} \frac{1}{9} \frac{14}{14}$, $\frac{4}{18} \frac{25}{2} \frac{15}{1} \frac{20}{19}$

Answers: zebra, quagga, mussels, ballast, predators, populations, veligers, byssal, threads, prevent, invasive, mussels, always, clean, drain, dry, boats

CONNECT THE DOTS



Connect the dots in numerical order to reveal the picture, and then colour it in.

Who did you find?

WHAT DO INVASIVE MUSSELS DO?

Ruin outdoor fun. When Zebra Mussels and Quagga mussels die, their sharp shells wash up on our beaches. People can cut their feet if they step on them! They also grow all over dock ladders, and can even clog boat motors.

Unwanted. Invasive mussels (and other invasive species) are bullies that can reproduce and grow quickly. They push native animals and plants out of their natural habitats, and can even drive them to extinction. They can also clog the pipes that we use to collect drinking water.

No natural enemies. There are no animals in BC that eat invasive mussels. This means there is nothing that can keep them under control if they get here. If they ever arrive, they are here forever.

WHAT ARE INVASIVE MUSSELS?

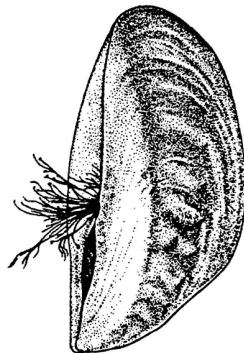
Invasive mussels are **non-native** and come from other places in the world. Zebra Mussels and Quagga Mussels were introduced from Eastern Europe and Asia.

Zebra and Quagga Mussels are small. Adult mussels have a pair of triangular shells connected by an elastic hinge. The shells are usually brown with stripes, like a zebra.

Zebra and Quagga Mussels can grow hairy strings called byssal threads that help them attach to anything in the water- boats, docks, anchors, rocks, and even our native mussels!

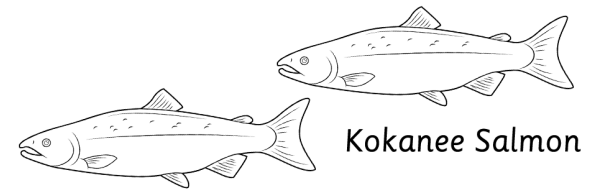
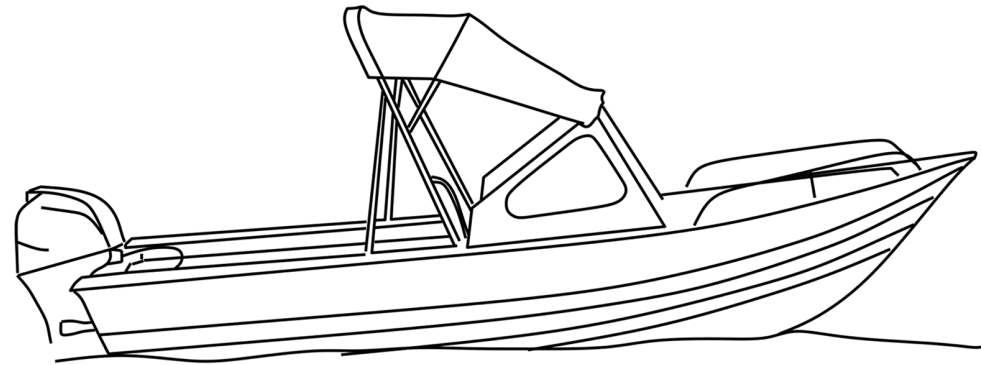


Average size = 3cm



Maximum size = 5cm

DESIGN A BOAT



Kokanee Salmon

What is the name of your boat?

DESIGN YOUR OWN INVASIVE MUSSEL

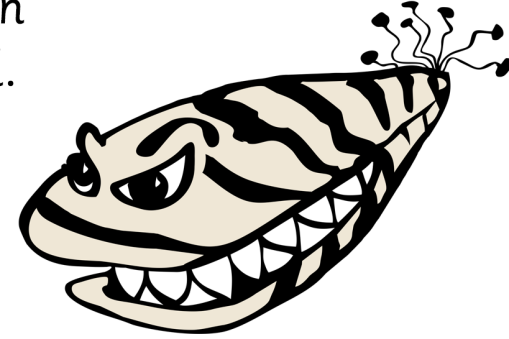


What is the name of your invasive mussel?

Where did your mussel come from, and how did it get here?

MEET ZEB

The name's Zeb! I'm an **invasive** Zebra Mussel. Scientists say I'm a kind of mollusk. That means I'm related to clams, slugs, snails, and even octopuses.



Me and my cousin, Quag the Quagga Mussel, hitched a ride to Canada's Great Lakes waaaaay back in the 1980s. Me and my family stowed away in the ballast water of cargo ships from Europe and Asia. Since then we've been sneaking into lakes across Canada and the United States by hiding out in boats and trailers. We haven't invaded British Columbia yet, but I've got to say, your lakes are looking REAAAAAAAAL comfortable for me and my family to move into.

Information and Layout:

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August 2022

Okanagan and Similkameen Invasive Species Society
Summerland, BC

Zeb, Quag, and Clamentine Illustrations:

Jafa Industries Ltd./Back Alley Design
www.jafaindustries.com

Zebra Mussel Diagram:

Great Lakes Environmental Research Laboratory

Boat and Salmon Illustrations:

Supercoloring.com/Artsashina

Production:

Okanagan and Similkameen Invasive Species Society
Regional District of Okanagan-Similkameen

Financial Support Provided By:

Okanagan Basin Water Board - Okanagan WaterWise

OASISS respectfully acknowledges that we live, work,
and play within the traditional, unceded
territory of the Sylix people.



DRAW YOURSELF AS A MUSSEL DEFENSE HERO!

For More Information:
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CHECKLIST TO STOP INVASIVE SPECIES

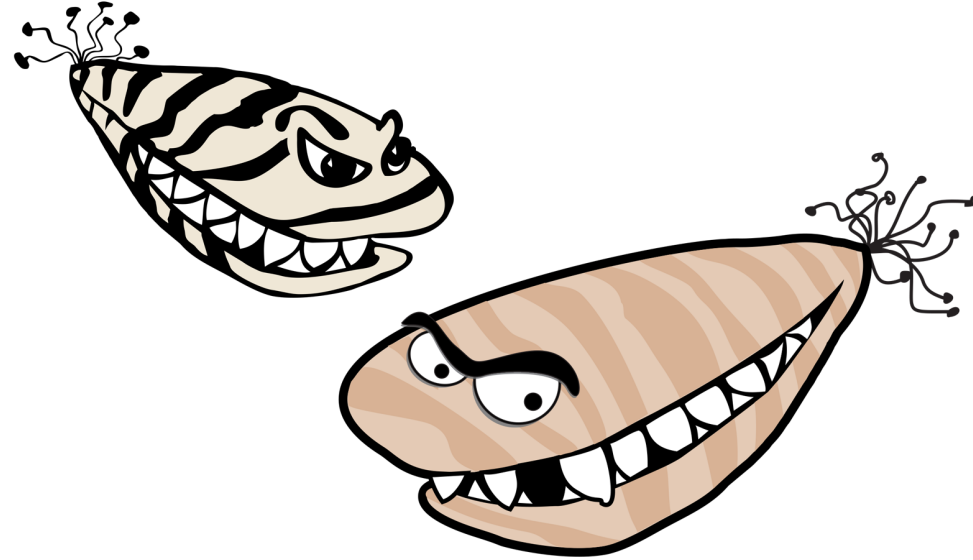
Tell your parents to clean, drain, and dry your boat to prevent moving mussels and other aquatic invaders from lake to lake.

Never release aquarium pets and plants into ponds, rivers, or lakes. Don't Let It Loose!

Tell your friends, parents, and teachers about invasive mussels.

Ask a parent or teacher to help you find out more information on the internet. Create a poster or video to make other people aware of these unwanted invaders.

NOT WANTED DEAD OR ALIVE



ZEBRA & QUAGGA MUSSELS

IF THEY ARRIVE IN THE
OKANAGAN-SIMILKAMEEN,
IT WOULD COST US

\$45,000,000

EVERY YEAR TO CONTROL THEM.
BUT THEY WILL NEVER GO AWAY.