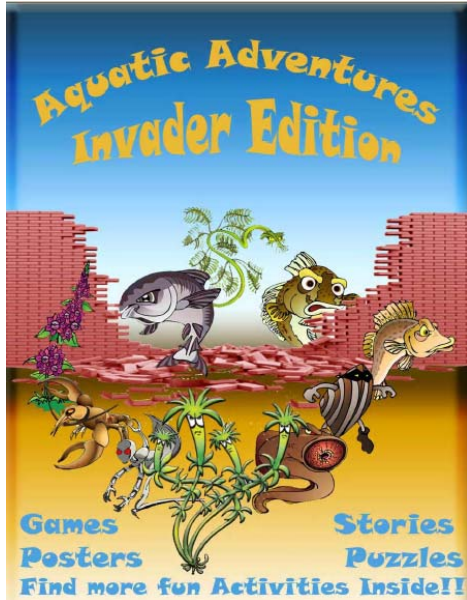


## **Aquatic Adventures: Invader Edition**



**Bryan Foli's 7<sup>th</sup> grade class, 5<sup>th</sup> hour at Edison Middle School**  
Champaign, Illinois

### **Introduction to Stewardship Project**

The project is a magazine, similar to Highlights, that teaches readers about aquatic invasive species and the problems they cause.

### **Objectives**

The project was meant to be something fun for the students to create that is useful for the community partners, the Urbana Free Library and the Champaign County Forest Preserves. Everybody contributed one page to the magazine so that each student could share what he or she learned with the community.

### **Student Activities**

This is achieved through activities such as word games, pages where students can draw and color pictures of invasive species, short skits that students can perform, poems about species and their effects, matching games to educate students about species including where they come from and how they harm ecosystems, wanted posters, information pages about the species, and several others. Each student created his or her own page to be included in the magazine.

### **Outcome/Impact of the Project**

The magazine provides a comprehensive collection of activities to educate children on the dangers of aquatic invasive species. The University of Illinois students felt that their 7<sup>th</sup> grade students learned a lot about invasive species. Students also said that they learned how to use the internet to search for information. The Urbana Free Library and Champaign County Forest Preserves enjoyed the project and planned to display the magazine at their locations. Both locations also had extra copies of the magazine available for visitors to take home.





# Aquatic Adventures Invader Edition



**Games**

**Posters**

**Find more fun Activities Inside!!**

**Stories**

**Puzzles**

## ACKNOWLEDGMENTS

Walking into Mr. Foli's classroom in February, I don't think any of us knew what to expect. Over the past few weeks, we have come a long way. With a little bit of patience, teamwork, and elbow grease we have a project we are proud to share with our community!

We want to give a special thanks to all the help from our professors: Robin Goettel, Terri Hallesy, Cory Suski, Joanne Vinning, Valeri Werpetinski, our classroom teacher: Brian Foli and the Champaign Unit 4 School District, Champaign County Forest Preserve, Urbana Free Library, and all of our guest speakers.

Once again thank you for helping us make something we can give back to the community. We hope you enjoy Aquatic Adventures brought to you by Mr. Foli's 7<sup>th</sup> grade 5<sup>th</sup> hour science class!





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## **Invaders Information Page**

By Paul



### ***Sea Lamprey***



The sea lamprey is a parasite from the Atlantic Ocean. It uses its sucker like mouth to suck blood and other fluids from native fish those who don't die are left with a nasty scar. Fishing industries have declined since the lampreys invaded.

### ***Brazilian Elodea***

The Brazilian Elodea is a plant. it was brought over here because it is good at turning carbon dioxide into oxygen making it a great plant to keep in aquariums but when people dump out their aquariums these plants get into lakes. The elodea spreads so fast it is called waterweed it forms dense mats, which lowers water quality.



### ***Zebra Mussel***



The zebra mussel is small but it can spread like crazy! These mussels came to America in the ballast water of boats. They can choke out native species. They clog up intake pipes causing big problems

### ***Purple Loosestrife***

Purple loosestrife were brought over because they look pretty but they can spread like heck. Each plant has hundreds of flowers and each flower can release hundreds of seeds. The loosestrife chokes out native plants and kills off native species.



### ***Rusty Crayfish***



The rusty crayfish kills off plants depriving native fish of food and shelter it steals all the food and good hiding places it can and kills off native crayfish.

### ***Ruffe***

**The Ruffe is very small (in fact this picture is around actual size) but it loves to eat! Swarms of these fish devour plankton, plants, fish eggs and baby fish. It is collapsing the food chain. Its spines make it tough for other fish to eat.**



### ***Fishhook Flea***



**A tiny flea that has a huge spiny tail. It gets tangled in nets and only eaten by salmon. Causes huge problems for fishing industries by getting tangled in nets and fishing lines. Eats plankton and dominates bottom of the food chain**

### ***Silver Carp***

**Huge carp from Asia they get up to 4 feet long. They eat all the plankton, fish and mussels they meet and kill out the natives. When they get mad they jump out of the water and slap whatever near, they can jump up to 12 feet.**



### ***Round Goby***



**Small fish that resemble tadpoles. They push out native fish and eat all the food. By displacing fish they annoy fishers that need to hunt around for their preferred catch. Reproduces very quickly making an over population.**

### ***Watermilfoil***

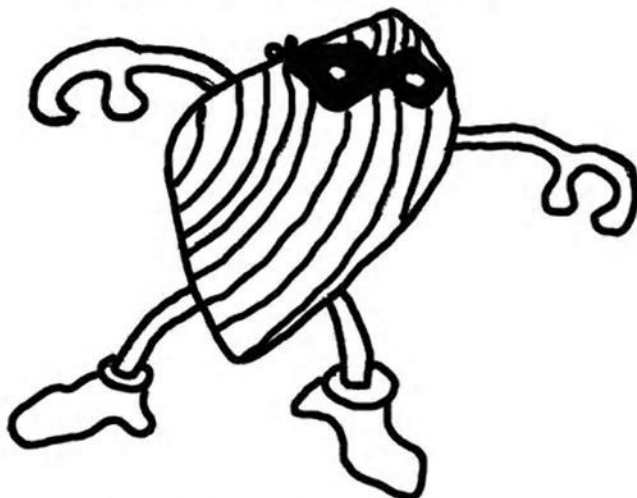
**Plants that form dense mats on the surface blocking out light and lowering water quality. They slurp up all the carbon dioxide leaving none for native plants. Pushes out native plants causing fish to starve. And you can forget about going for a swim in their lake!**





# Color the Invaders

Zeke "The Prowler"



I came from the Caspian  
and Aral Seas in Eastern  
Europe and Western Asia

Brazilian Elodea



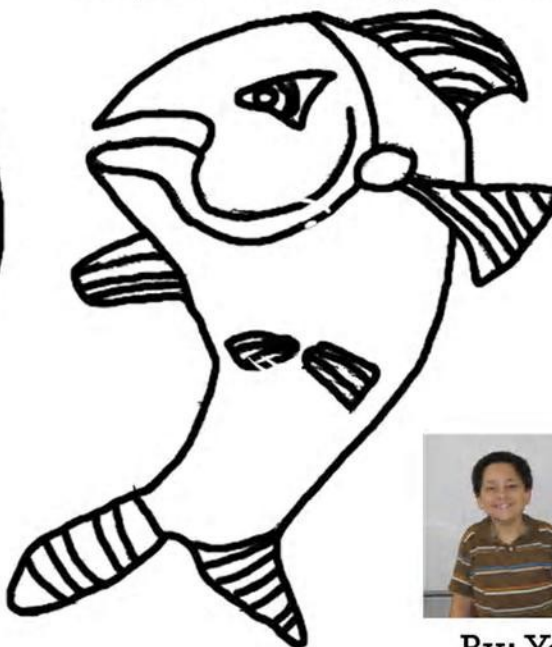
I came from south  
American specifically  
Brazil or Argentina

Fiton "The Offender"



I came from the Caspian  
or Azovs Seas in Europe  
takes over your lakes

Clyde "The Bigsmack"



American fish farmers  
brought me here from  
china in the 1970's.



By: Younis

## Invasive Aquatic Species: On the Loose!

-Invasive Aquatic Species are an ever-growing problem. They are certain species of plants and animals -that are populating in the great lakes regions, rapidly spreading and even wiping out native creatures.

-Our reporter, KC, interviewed one of the most prominent invasive aquatic species, Diego the Brazilian Elodea, also known as “El Grande,” in an effort to get our readers more aware of the problem, so that these “criminals” can be put to a stop.

**KC:** So, what exactly is your issue?

**Diego:** Well, I honestly don't think I have a problem. I mean, sure, I might clog pipes, interfere with the use of lakes, and crowd out native species, but I'm a living creature, and I have to do what I need to survive.

**KC:** Okay, I get where you're coming from, but you're not even native to the great lakes region. Where are you from, anyway, and how did you get here in the first place?

**Diego:** Well, I'm from South America originally, specifically Brazil, Uruguay and Argentina. But what's wrong with some travel? To broaden my cultural horizons! To—

**KC:** Okay, we've heard enough of your “excuses.” We want the facts and only that!

**Diego:** Well why didn't you say so in the first place?

**KC:** So what do you look like?

**Diego:** I would say I look like a cross between the blue m&m and a tulip.

**KC:** Diego!

**Diego:** All right, all right! It seemed like an opinion question to me. Technically, I have a very long stem and lots of leaves, crowded closely together. I can grow to be up to 6 feet tall, and I also produce little white flowers.

**KC:** That's more like it! So what sets you apart from other plants?

**Diego:** Well, I can grow up to 100 acres a year! I'm also good at turning carbon dioxide into oxygen. Therefore, I'm a great aquarium plant, but not so good for lakes. At least in *certain* people's opinions.

**KC:** So how can people get rid of you?

**Diego:** Oh, you should definitely cut me! That's the best way!

**KC:** Nice try, but no. DO NOT cut up Diego if you're trying to get rid of him. He can grow from even the tiniest pieces of himself, so cutting him into pieces will actually make him grow faster! If you're really trying to get rid of him, you should cover him with something, such as a fabric, to cut him off from sunlight. Diego can't survive without the sun. Herbicides will also slow him down pretty effectively.

**Diego:** Oh thanks! I really appreciate you telling the whole world how to KILL ME!!!

**KC:** Well, you're welcome! If you want to know more about stopping Invasive Aquatic Species, like Diego, you can go to [www.sgnis.org](http://www.sgnis.org), or just Google "Invasive Aquatic Species."



By: Kristen



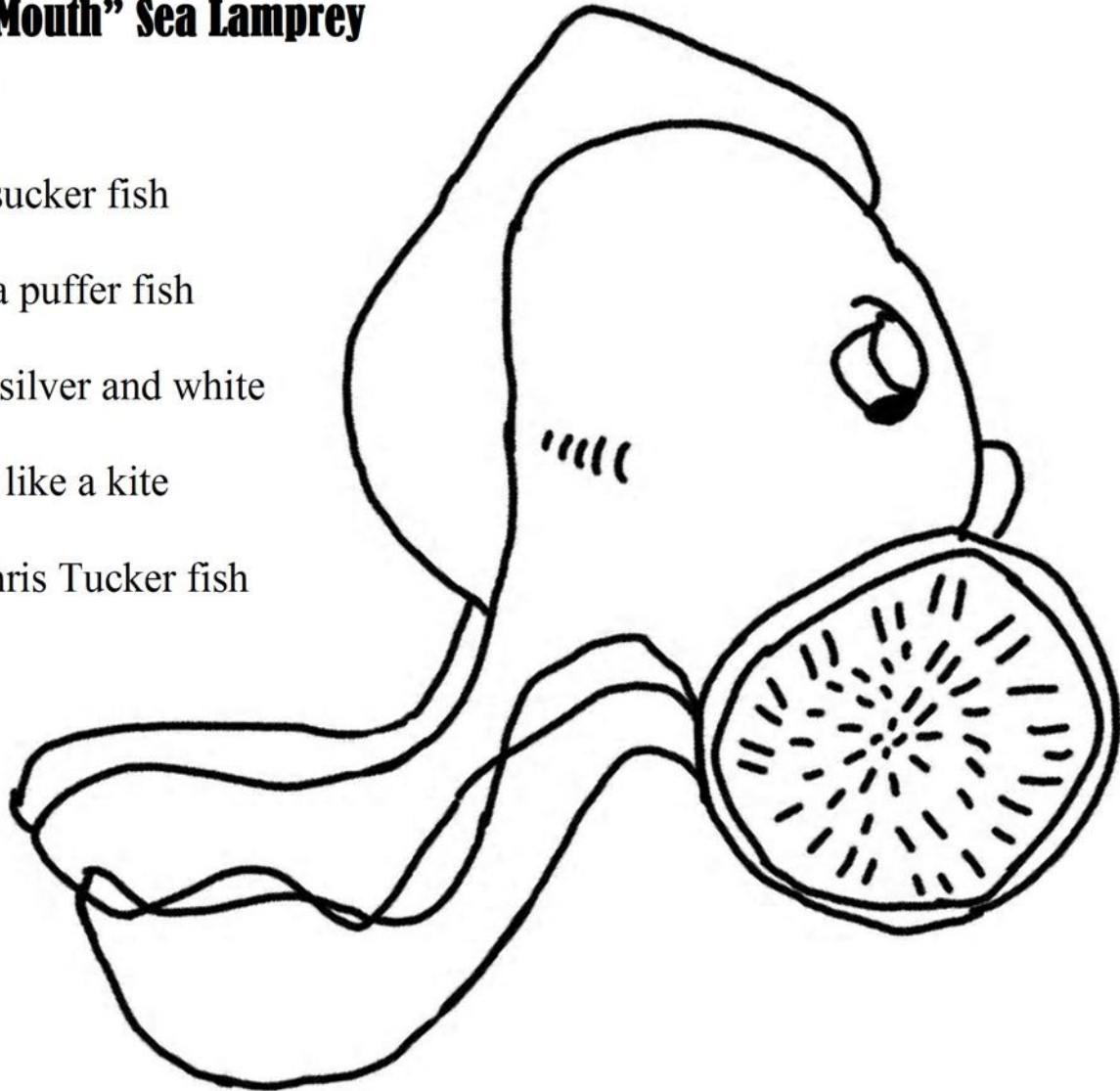
## **Louie “Sucker Mouth” Sea Lamprey**

Limerick:

It sucks likes a sucker fish  
It’s deadly like a puffer fish  
Underneath it’s silver and white  
It looks nothing like a kite  
It talks like a Chris Tucker fish



By: Kewon



### **How to Control Louie:**

Scientists are using chemicals placed in the water upstream from where we mate to control new populations. When I am young Walleye and Lake Sturgeon like to feed on my friends and I. Scientists have installed electric barriers to stop our movements into new waters and into our nesting grounds. These measures are being taken to stop the damage I am doing to the fish in lakes and rivers that I move into.

# Finish the Picture

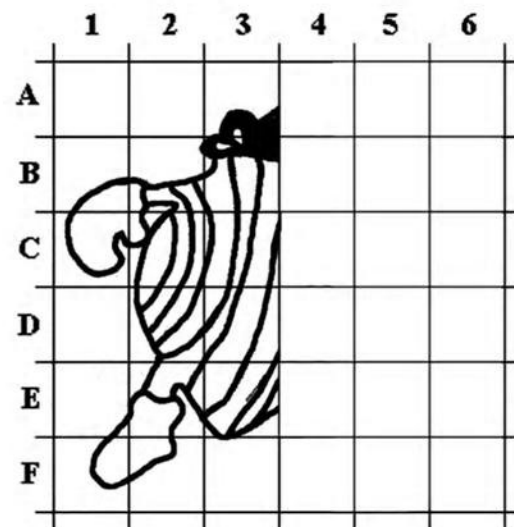
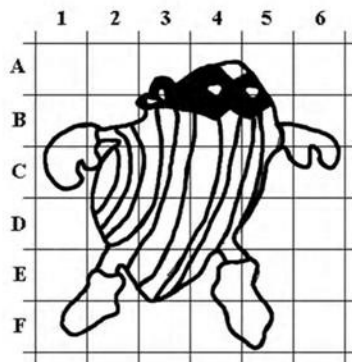
By:  
Carmen



## FACTS ABOUT THE ZEBRA MUSSEL:

- Comes from the Caspian Sea
- They come on ships that traveled from fresh water ports
- They are bivalves
- They are fingernail-sized mollusks
- They create problems in food webs
- They decrease food supply for native fish
- They cluster together
- They suffocate native mussels
- They clog pipes, boat motors, and pumps
- They can cut your skin!

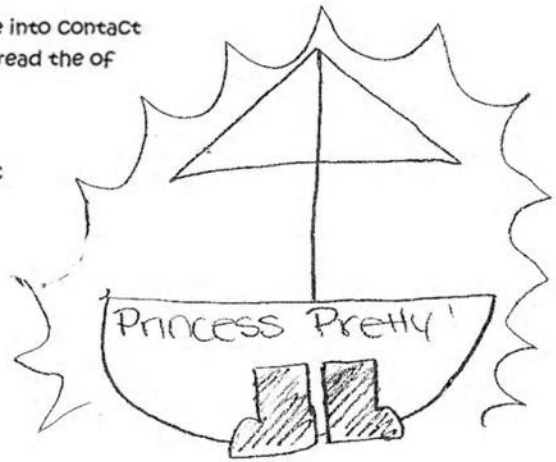
## NOW YOU CAN FINISH THE OTHER HALF!



- Dry all wet things that came into contact with the water to reduce spread the of aquatic invaders.



- Throw away all bait and the aquatic invaders, such as **purple looselife**.



- Clean al your equipment and clothing, even if it didn't get wet.

- Wash your animals and boat so you don't take aquatic invaders with you to another lake.

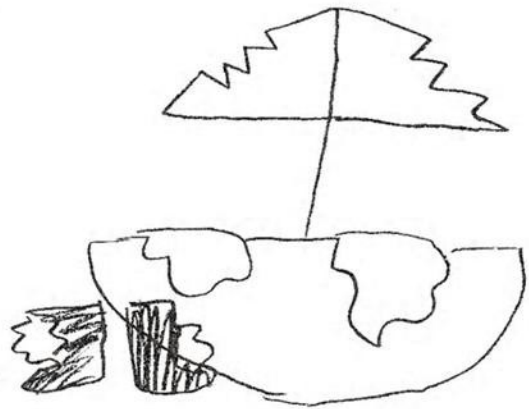


Good!

Bad!



- DON'T leave your bait near any body of water!



- Invaders will hitchhike on dirty pets and equipment

- DON'T take fishes home!



By: Hannah

- DON'T dump your pet fishes in the water or they can become a threat!



# Aquatic Species ID PAGE



Louie  
"Sucker Mouth"  
Sea Lamprey

I hurt lake populations, which was a big problem for commercial fishers in the mid-1900s. I'm an eel-like fish that is grey-blue on my back and silver-white underneath.



Diego  
"El Grande"  
Brazilian Elodea

I form dense beds that interfere with the use of lakes and rivers. I am a long-stemmed plant with densely packed leaves.



Zeke  
"the Prowler"  
Zebra Mussel

I create problems in the food web by decreasing the food supplies of the native fish. I am a mollusk about the size of a fingernail. I have a striped pattern on both of my shells



Rusty  
"the Bully"  
Crayfish

I severely reduce lake and stream vegetation. I have a brown body and large claws that are bigger than some other crayfish.



Purple  
"Lucky"  
Loosestrife

I degrade wetlands and marshes by taking away other species habitats. I'm a perennial weed that can grow up to 2-3 feet tall.

By: Shorvon



# Match the Species!



- Feathery submerged plant with long, stringy stems and small reddish flowers above water in mid summer.
- Bottom dwelling fish slightly resembling a large tadpole with a big head.
- Fish with low set eyes and large upturned mouth without barbells.
- A tiny, 1cm long crustacean with a loop or hook on the end of its long spiny tail.
- An olive-brown or golden-brown fish with rows of dark spots between its sharp spiny top fin.
- Brown body crayfish with claws that are larger than some other crayfish.
- Perennial weed with pretty purple flower that can grow two to three meters tall.
- Fingernail sized freshwater mollusks with a striped pattern on both shells.
- Long stemmed plant with densely packed leaves.
- Parasitic eel like fish that is gray-blue on its back and silver-white underneath

By Nick



# WANTED



Competes with native fish and native mussels. Jumps out of the water and smacks boaters and anglers when annoyed by boat motors.

**Clyde**  
"the Big Smack"  
Silver Carp

By: Steven





# Fill in the Blank!

1. I am a sea lamprey and I traveled all the way from the \_\_\_\_\_ & the \_\_\_\_\_.
2. I am a Brazilian Elodea. I grow in very dense beds on the bottom of \_\_\_\_\_ & \_\_\_\_\_.
3. I am a Zebra Mussel and I get stuck on \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_
4. I am a Purple Loosestrife and can grow over \_\_\_\_\_ feet tall!
5. Hi! I'm Rusty the Crayfish! I love to \_\_\_\_\_ other crayfish!
6. My name is Rocco Ruffe and I come from the continents \_\_\_\_\_ and \_\_\_\_\_.
7. I'm Fiton the fishhook flea and I attach my \_\_\_\_\_ to other fleas and invade your lakes!
8. I am a silver carp and I can jump over \_\_\_\_\_ meters!
9. I'm a Round Goby that is very tired of the Great Lakes--now I'm headed for the \_\_\_\_\_.
10. I am a water milfoil--I live in over \_\_\_\_\_ states!

## Word Bank:

6	pumps	Mississippi River
40	pipes	Atlantic Ocean
4.5	boat motors	Mediterranean Sea
Asia	bully	Rivers
Europe	tail	Lakes

12



By: Shadezeria



# Riddles

- I came from the Atlantic and Mediterranean seas, I am long dark and slimy and I can suck the life out of any party!

Who am I?

- I am from South America and I can turn carbon dioxide into oxygen. I am long, green and can spread 100 acres in one year.

Who am I?

- I came from the Caspian and Aral Sea and I attach myself to anything you put into the water. I am very small and striped, but if you step on me I can cut your foot open.

Who am I?

- I came from the wet lands in Europe. I live in the soil and kick out any other animals that are in my way. When you look at me you will be struck by how many colors I have.

Who am I?

- I came from the Ohio River Valley, and I bully all the other animals that are in my way. I eat the young and the eggs of others. I can cut off your finger with my claws (not really).

Who am I?

WORD BANK: Sea Lamprey, Zebra Mussel, Crayfish, Ruffle, Brazilian Elodea, Purple Loosestrife

By: Jake







## **Rusty Fish By Edmond**



**My name is rusty fish. I was born in Ohio. It was so boring there. One day our family decided to go Minnesota. We are so excited. We packed our bags and then left Ohio. When we were ready to leave, we saw a big fish boat. My family tricked the fishermen into taking us with him to Minnesota. He thought he was going to use us as bait but we escaped. We saw a lot of different kind of fishes when we arrived. The native fish have never seen a crayfish like me. Those fishes knew something was wrong because I don't belong here.**

**I was freaking them out a lot, when I bullied them out of their daytime hiding spots. I am really mean to the other fish when I cut down the plants that they hide in. When humans go swimming and step on me I pinch their feet really hard.**

**A boy named Edmond stepped on my mother. So she pinched his foot. We all tried to run away. But mom was to slow. So, she was caught by Edmond with his big hands. He brought her home and put her in his aquarium. We were really sad.**

**But even after mother was taken we decided to stay in Minnesota. At night, they are tired and hungry. We found a big rock and underneath there were fish eggs, those are our favorite food. Now that we found our favorite food we never want to leave.**

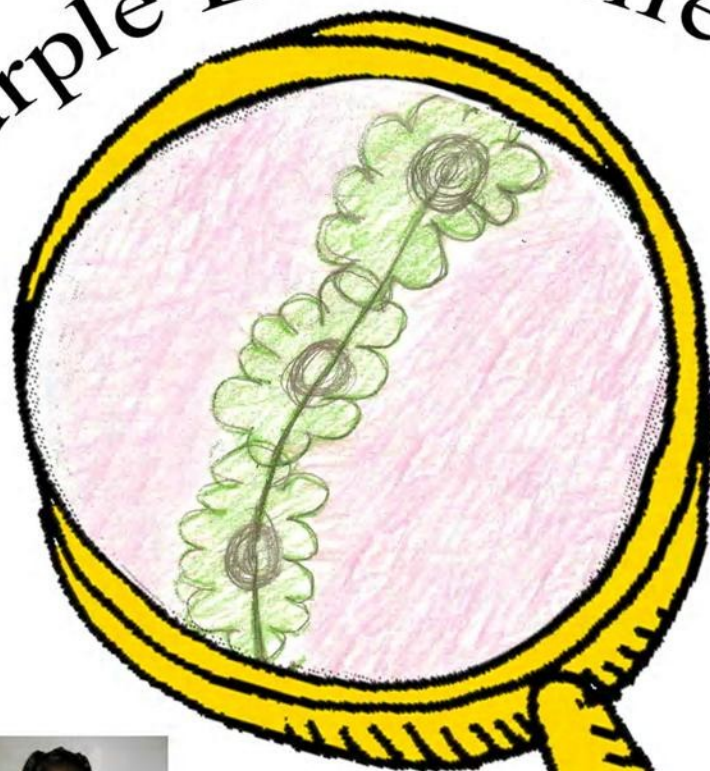
**The End**





I spy . . .

Purple Loosestrife



Sea Lamprey



By:  
Tiara

Brazilian Elodea



Watermilfoil

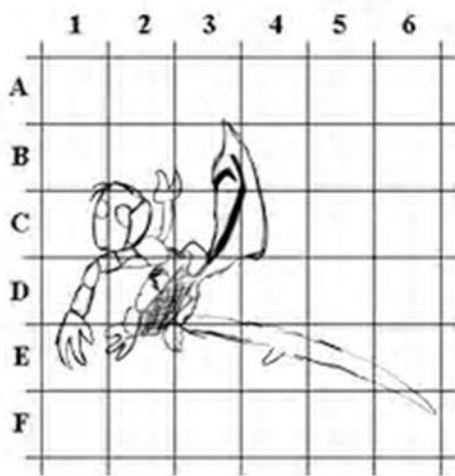


# Finish the Picture!

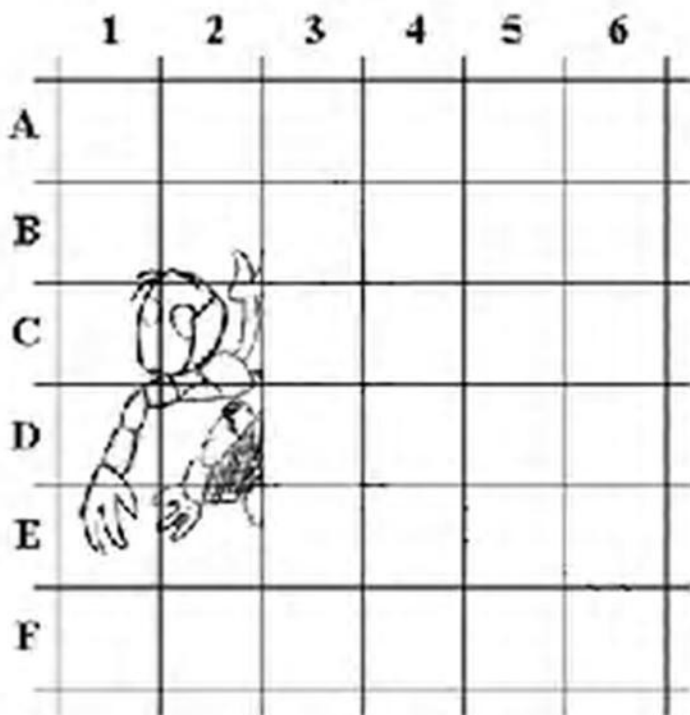
He is an alien

He came from the Caspian, Aral and Azov Seas in Europe

He was shipped in ballast water



**Fishhook Flea**



You can't control him

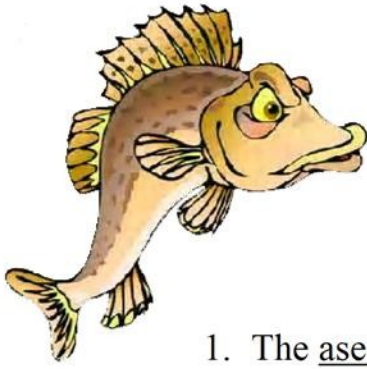
He can clog up nets

He can cause problems for multibillion fishing industries



By: Justin



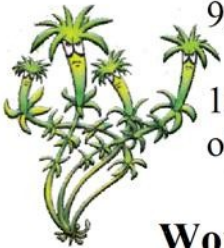


# Aquatic Word Scramble

By: Madison



1. The ase pameyrl can kill and ujrien fish.
2. The lizrabina loeade lowers waters ultyqai and lgocs water pipes.
3. The erbaz smusle creates problems in the food web by decreasing food supplies for native fish.
4. The ltiefrtoseo degrades wetlands and marshes by taking away habitat and food.
5. The rfaycsih severely reduces lake and stream vegetation.
6. The urfef fish eat incredibly large amounts of fish eggs and bottom dwelling organisms.
7. The hookfish feal pushes out native zooplankton.
8. The ilvers arcp jumps out of water and smacks boaters.
9. The oundr obgy feeds on fish eggs and ouyng fish.
10. The atermilwfoil forms dense mats on the surface that interfere with the use of lakes and rivers.



## Word Bank:

Sea Lamprey    Fishhook Flea    quality    Crayfish    Ruffe

Zebra Mussel    Brazilian Elodea    clogs    Loosestrife

young    Silver Carp    injure    Round Goby    Watermilfoil







# Matching Game



1. Diego "El Grande" Brazilian Elodea
  2. Purple "Lucky" Loosestrife
  3. Louie "Sucker Mouth" Sea Lamprey
  4. Zeke "the Prowler" Zebra Mussel
  5. Rusty "The Bully" Crayfish
  6. Rocco "the Ravenous" Ruffe
  7. Fiton "the Offender" Fishhook Flea
  8. Clyde "the Big Smack" Silver Carp
  9. Gabby "the Lowlife" Round Goby
  10. Wilma "the Creeper" Watermill Foil
- a. Degrades wetland and marshes by taking away habitat for native wildlife.
  - b. Competes with native fish. Eats phytoplankton and zooplankton, fish and native mussels.
  - c. Forms dense mats on the surfaces that interfere with the use of lakes and rivers.
  - d. Hurts lake trout population that affected commercial fishing in mid 1900s.
  - e. Forms dense beds that interfere with the use of lakes and rivers.
  - f. Pushes out native zooplankton, clogs up nets and fishing.
  - g. Displaces native fish feeds on fish and eggs and young fish-spawns multiple times and year.
  - h. Creates problems in the food web by decreasing food supplies for native fish.
  - i. Competes with native fish. Eats incredibly large amounts of fish eggs and bottom-dwelling organisms.
  - j. Reduces lakes and stream vegetation.



By: Andrea

## **Diego “El Grande” Brazilian Elodea**

*(The problem) The Brazilian Elodea came from south America, especially Brazil, Uruguay and Argentina. People use this Elodea for aquariums because it keeps fish alive, but some people who get tired of this species puts it in lakes or rivers. This is not good, the Brazilian Elodea is not native, but it is invasive. The Brazilian Elodea or Egeria densa grows very thickly and stops some water flow, clogging the mouth, which is lowering the water quality. It also interferes with the uses of the lakes, rivers and pipes. This plant is truly amazing as it can grow over 100 acres every year. Talk about being busy. It also pushes out native plants and animals, pushy pushy.*

*(Fixing the problem) If you are one of those people who love our lakes and rivers and want to help then here are some do's and don'ts:*

- **Don't** try and cut them up because they can grow into new plants from pieces. They will spread faster.
- **Don't** try and drain the lake, river, or pond because you could kill native plants and animals that you are trying to save.
- **Don't** put grass carp in the lakes. Even though they like to eat the Elodea they also eat other plants.
- **Do** put herbicides in because it slows down their growth.
- **Do** cover the body of water with a cloth b/c the Elodea have to have sunlight to live.

**If you do this, you will help out our environment a lot. So please be considerate and help out or even let people know that they should kill this invasive species instead of letting it go.**

**For more information go to <http://www.sgnis.org/kids/lakes/>**





## Fill in the Blank

1. They live in the Atlantic Ocean and come from the Mediterranean Sea.

\_ e \_ l \_ m \_ r \_ y

2. They stick to pipes and boats.

\_ \_ b \_ a \_ u \_ s \_ l

3. They jump over four and a half feet and can hit boaters in the face.

\_ i \_ v \_ r \_ a \_ p

4. They are brown and bully others of my own species.

\_ r \_ y \_ i \_ h

5. They come from South America, specifically Brazil, Uruguay, and Argentina.

\_ i \_ g \_

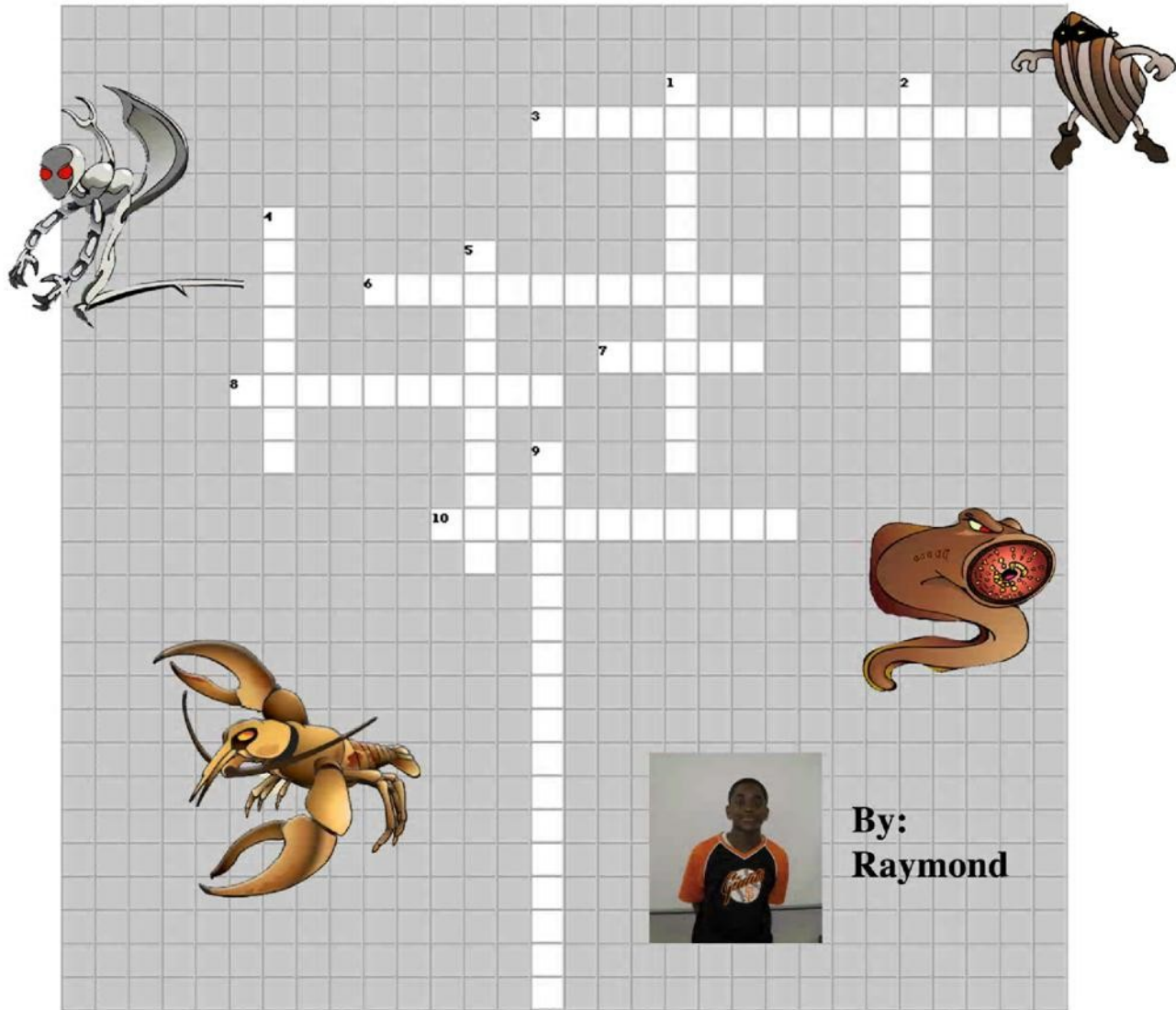


By:  
Derrick





# Nab the Aquatic Invader Crossword Puzzle!



## Down

1. Pushes out native zooplankton and clogs up nets and fishing lines. They are from the Caspian Sea and the Aral and Azov Seas. (2 words)
2. Displaces native fish. They also feed on fish eggs and young fish. They spawn multiple times a year. (2 words)
4. Severely reduces lake and stream vegetation. They are from Ohio River, in Kentucky, Tennessee, and Ohio.
5. Hurts lake trout population, killing up to about 30,000 pounds a year. (2 words)
9. Injures wetland and marshes by taking away habitat and food for native wild life. It can invade farmers' crops too. (2 words)

## Across

3. They come from South America especially Brazil, Uruguay and Argentina. (2 words)
6. Forms dense mats on the surface that interfere with the use of lakes and rivers. It originated in Northern Europe and Asia.
7. Competes with native fish and eats a lot of fish eggs.
8. Competes with native fish, and it eats all phytoplankton and zooplankton, fish and native mussels. (2 words)
10. Creates problems in the food web by decreasing food supplies for native fish and comes from the Caspian Sea and Aral Sea. (2 words)

## THE FISHHOOK FLEA!

Nab the aquatic invader!

# INVADER!

This tiny predator is vicious!

The fishhook flea came from Caspian, Aral, and seas in Europe!

They arrived by ship and were first discovered in 1998

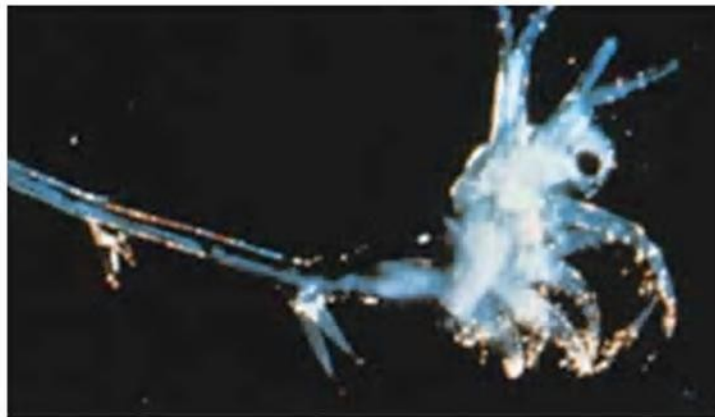
Its located in the Great Lakes! And its spreading!

You can't really control it!

So watch out! It can clog your nets and your fishing lines!

This tiny fellow is a mere 1 cm long. And its eyes are its biggest feature.

The hook on its back end catches on to prey and other items!



Hmm! I think  
I think I'll  
clog this net!

aka, *Terrapagis pengoi*

Nab the aquatic invader!

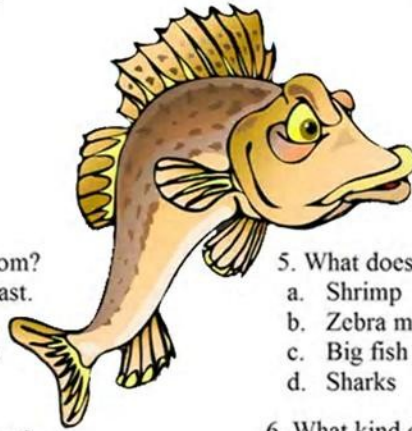
Clean your boats! And Rinse all your Fishing,  
diving and everything else you use!

Help the native species!!!



By Catherine  
Of Mr. Foli's 7th Grade class  
Edison Middle school

# Test Your Invader Knowledge



1. Where is the Zebra Mussel from?
  - a. Caspian and Aral seas in East.
  - b. Northern Europe and Asia.
  - c. Africa and south American
  - d. North American and Asia
2. Where is the Watermilfoil from?
  - a. Asia.
  - b. Africa.
  - c. Northern Europe and Asia.
  - d. Middle East.
3. How big can the Silver Carp get?
  - a. 27kg and 1.2 meter.
  - b. 20kg and 1.7meter.
  - c. 20kg and 1.5 meter.
  - d. 30kg and 33.4 meter
4. Where did the Round Goby come from?
  - a. Black and Caspian
  - b. Atlantic ocean
  - c. Lake Michigan
  - d. Ohio river
5. What does the Round Goby eat?
  - a. Shrimp
  - b. Zebra mussels
  - c. Big fish
  - d. Sharks
6. What kind of water does the Ruff live in?
  - a. Swamp water
  - b. Salt water
  - c. Fresh water and brackish
  - d. Great Salt Lake
7. What does the Ruff eat?
  - a. Small aquatic insects, eggs of other fish
  - b. Eels and sea urchins
  - c. Great White Shark
  - d. Wooly Mammoth
8. Where is the Crayfish from?
  - a. Montana
  - b. China
  - c. Vietnam
  - d. Ohio River Valley
9. How tall can the Purple Loosestrife grow?
  - a. 2-3 meters
  - b. 10-20 meters
  - c. 2-3 inches
  - d. 20 feet
10. What color are the Purple Loosestrife's flowers?
  - a. Red
  - b. Green
  - c. Yellow
  - d. Purple



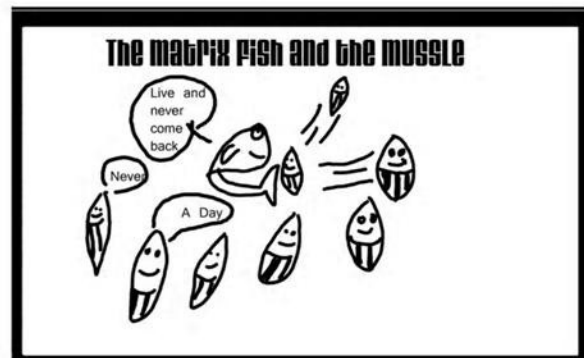
By: Dat





By: Steve

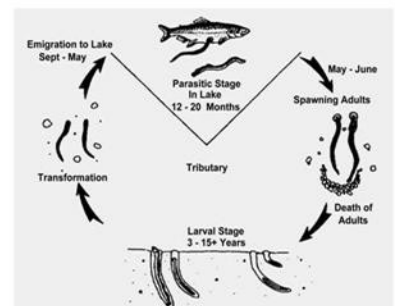
## Zeke



"the Prowler" Zebra Mussel

# The “Holey” Catch

You may be wondering what this “holey” Catch is – Well, just look at the picture to the right. At first glance they look like giant leeches. But leeches don’t cling to fish, these are sea lampreys. They stick on to fish with their sharp teeth and disk shaped mouth. They are blackish blue on top and silvery grey on the bottom; they are about 12 -20 in. long. They at first came from the Atlantic Ocean and Mediterranean Sea and then came to the great lakes. They start as larva, which can take 3 to 15 years, and then they go through the transformation to the parasitic stage for 12 to 20 months. Then in May and June the adult sea lampreys spawn and die. The cycle starts all over again. As for how to stop them, scientists are working on ways to kill off the larva without killing the other species that already lived there. Also, they are edible and people say that they are pretty good but I bet it’s just an acquired taste. I mean, they don’t seem too appetizing - no offense New Zealanders.



[www.scar.utoronto.ca/~youson/lamprey-photo.htm](http://www.scar.utoronto.ca/~youson/lamprey-photo.htm)

For more information on sea lampreys and other invasive aquatic species please visit [www.sgnis.org](http://www.sgnis.org) or [www.sgnis.org/kids](http://www.sgnis.org/kids)

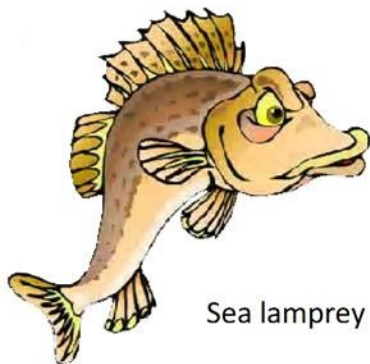
By: Joseph





## Match the Fish

1. This aquatic species hurts the lake trout population \_\_\_\_\_
2. This fish eats large amounts of fish eggs and bottom dwelling organisms \_\_\_\_\_
3. This plant degrades wetlands and marshes by taking away habitat and food for native wildlife \_\_\_\_\_
4. This fish displaces native fish, feeds on fish eggs, and spawns multiple times each year, increasing the population \_\_\_\_\_
5. This mussel pushes out native zooplankton and clogs up nets and fish lines. \_\_\_\_\_
6. This aquatic species eats all the phytoplankton and zooplankton, and fish and native mussels. \_\_\_\_\_
7. This fish severely reduces lake and stream population. \_\_\_\_\_
8. This plant forms dense beds that interfere with the use of lakes and rivers. \_\_\_\_\_
9. This mussel creates expensive clean-up and repair by clogging pipes and motors. \_\_\_\_\_
10. This aquatic species forms dense mats on the surface that interfere with the use of lakes and rivers. \_\_\_\_\_



## Word Bank!

Sea lamprey

Crayfish

Round Goby

Brazilian Elodea

Zebra Mussel

Ruffe

Watermilfoil

Purple Loosestrife

Fishhook Flea

Silver Carp



By: Brenna



## Invaders

Aquatic Invasive Species invade new places by clinging onto fishermen's nets and uncleaned water vehicles as well as many other ways. They are starting to affect our environment!

h f u y s o t s f h l s r f s y e u  
a b e o i o i e u c l e s a i o s e  
r r o n l e y e r e o o n t r f a a  
o a s s v s c t s e a l a m p r e y  
u z l r e s h s i f y a r c s l r l  
n i p e r e u v e l h i o t f e c o  
d l h d c m c a l s a u u k h l e l  
g i t u a s i o i a s u o r n d d f  
o a o r r u f f e h u o q o t a n i  
b n b t p t d i s s h r s r e v o v  
i e n n f e e i h h e i e a e e i f  
z l a i c m f c s u g f h v w t t e  
a o n u e e l i o f l i m r e t a w  
r d d i v u f m i n v a d e r s l w  
s e f i r t s e s o o l e l p r u p  
r a t o y o e u u o m m l y n a p e  
e a s d r f o r i b o i y n p p o s  
n i e c e w m r f c r o s a r i p s

Brazilian Elodea  
hurt economy  
Crayfish  
Round Gobi  
Fishhook Flea  
Ruffe

Sea Lamprey  
Purple Loosestrife  
intruders  
Silver Carp  
invaders  
water quality

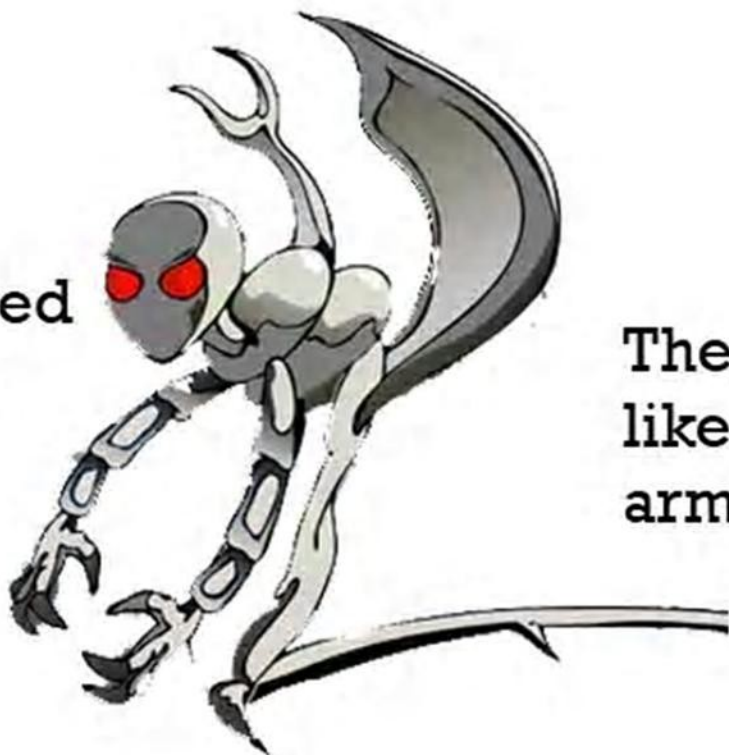
Watermilfoil  
reduced fish  
native fish  
Zebra Mussel  
population decrease

By Kevin



# Wanted

He was  
discovered  
in 1998!



They are  
like an  
army!

They took over Lake Michigan!

## Fishhook Flea



By: Deanna

## Zebra Mussel



I come from the Caspian and Aral Seas in Eastern Europe and Western Asia. I have brown and black stipes. I am about the size of a fingernail. We like to cluster together and clog up pipes.

## Watermilfoil



I originated in Northern Europe and Asia. I form dense mats on the surface of lakes and rivers. I also affect the water quality in lakes and rivers.

By: Deandre

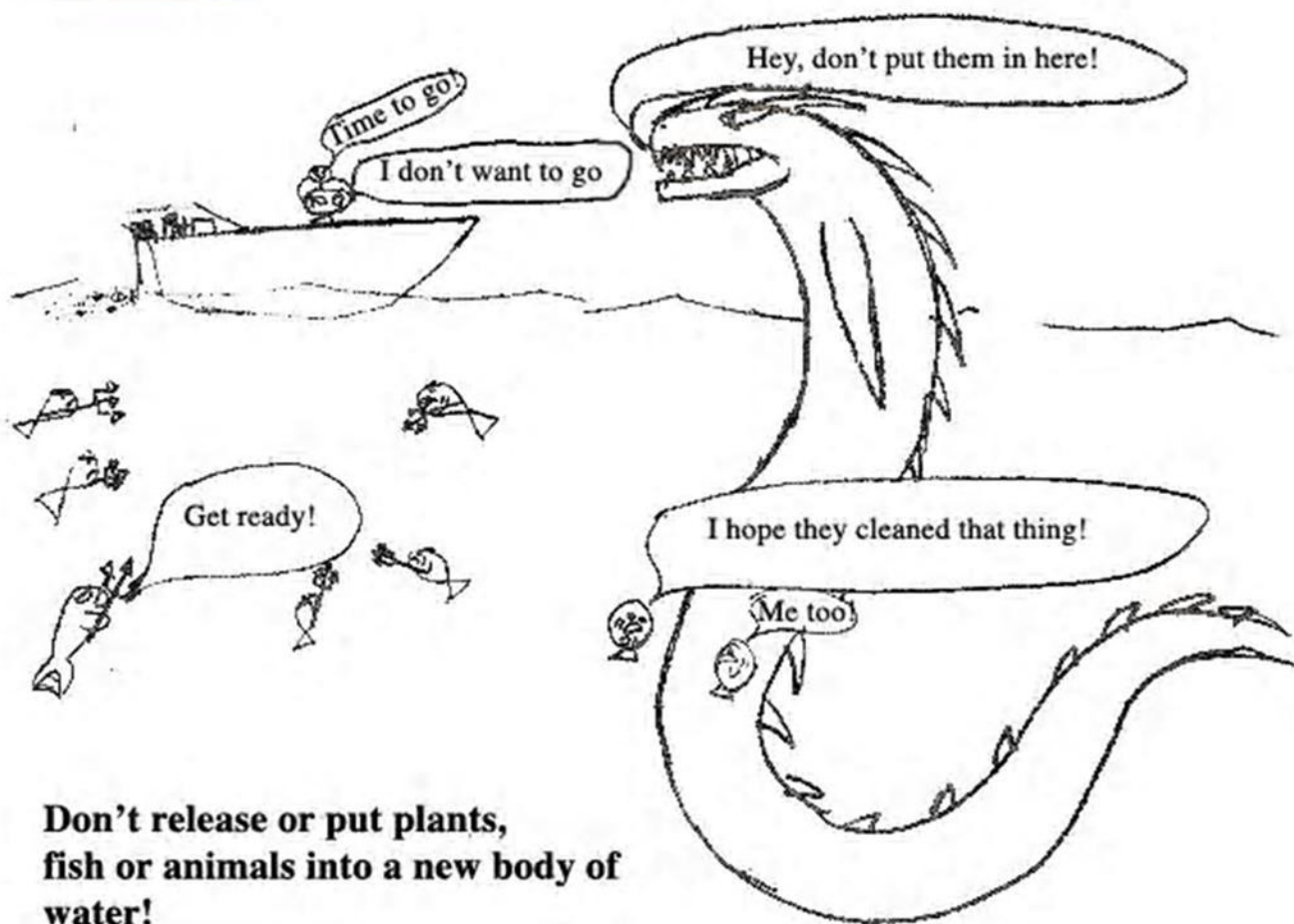




# Don't Dump Your Fish!



By: Nathan



**Don't release or put plants, fish or animals into a new body of water!**

This includes pet fish you might have at home! If you do not want to keep your pet fish anymore, find a new family for them instead of releasing them into a new body of water.

# WANTED: ZEKE "THE PROWLER" ZEBRA MUSSEL

## DESCRIPTION



HEIGHT: 2.54cm

1 INCH IN LENGTH

WHERE DID IT COME FROM?

CASPIAN AND ARAL SEAS IN EASTERN EUROPE AND WESTERN ASIA

## IMPORTANT FACTS:

- DECREASES FOOD SUPPLIES FOR NATIVE FISH
- CAN KILL NATIVE MOSSELS
- CREATES EXPENSIVE CLEAN UP AND REPAIR BY CLOGGING WATER IN BOAT MOTORS
- INVADES RIVERS AND INLAND LAKES
- CAN STICK ON AQUATIC PLANTS
- CAME OVER AS TINY LARVAE IN THE BALLAST WATER OF SHIPS



By: Adriana





