Final Action Plan
For the Stop Aquatic Hitchhikers!™ Project

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How did you incorporate this content within your curriculum? List some steps.
This covered the inquiry component, something that our principal was asking us to work on.

- Students watched the video about the Rusty Crayfish
- We had a classroom discussion about the video and what students knew about Exotic Invasive Species- I was surprised at all they knew!
- Then students picked a partner/or worked alone--their choice
- To get started we toured the DNR website on Invasive Species and they chose a topic to research
- I supplied questions to guide their information gathering and off they went
- Each group/individual also chose a way to share their information with the public at the Gala and made a brochure.
- Students were not required to be at the Gala to present and hand-out their Brochures but earned extra credit points for being there (about ½ showed up)

What venues did you use for students to present projects? How many people attended?

The Le Sueur-Henderson Spring Showcase Gala showcases student work. Around 250-300 people attended.

What community partners did you collaborate with to help share these messages?

The School and other teachers were my only other collaborators, although the newspapers from both Le Sueur and Henderson were there and took pictures.

At what presentation forum(s) did you share this information with colleagues?

The Gala was the main way I/we shared the information.

When did students present their projects? 3-19-12

List some of the topics students chose for their projects.

Mute Swan, Emerald Ash Borer, Rusty Crayfish, Purple Loosestrife, New Zealand Mudsnail, Spiny and Fishhook Waterflea are a few.

Spring Gala Project
Exotic Invasive Species

Project is due on the 16th of March.
To be presented at the Gala on the 19th.

You can choose to do a:

1) Comic strip
2) Logo
3) Games (like trivia)
4) Movie
5) Poster
6) Music
7) PowerPoint (Presentation)
8) Radio add
9) Painting
10) Other (approved by me)

Then take these steps:

Pick an invasive species (Research it)

Where did it come from?
How did they get here?
What are they doing here?
Who are they hurting?
Can we get rid of them? How?
What can the general public do?
How can we all make a difference?

When you are finished you will have:

One of the above (1-10)
A handout/brochure
A greater knowledge of Minnesota
Be an expert (citizen scientist) on your topic

Purple Loosestrife

Where did it come from?

The Purple Loosestrife came from a wetland in Europe and in Asia. It was introduced in Northeastern U.S. on the 1800's.

What are they doing here?

The Purple Loosestrife is growing and here for bee keeping. They are also taking up space here.

Who are they hurting?

The Purple Loosestrife is hurting wildlife, farmers, and gardens. They are also hurting humans.

How did it get here?

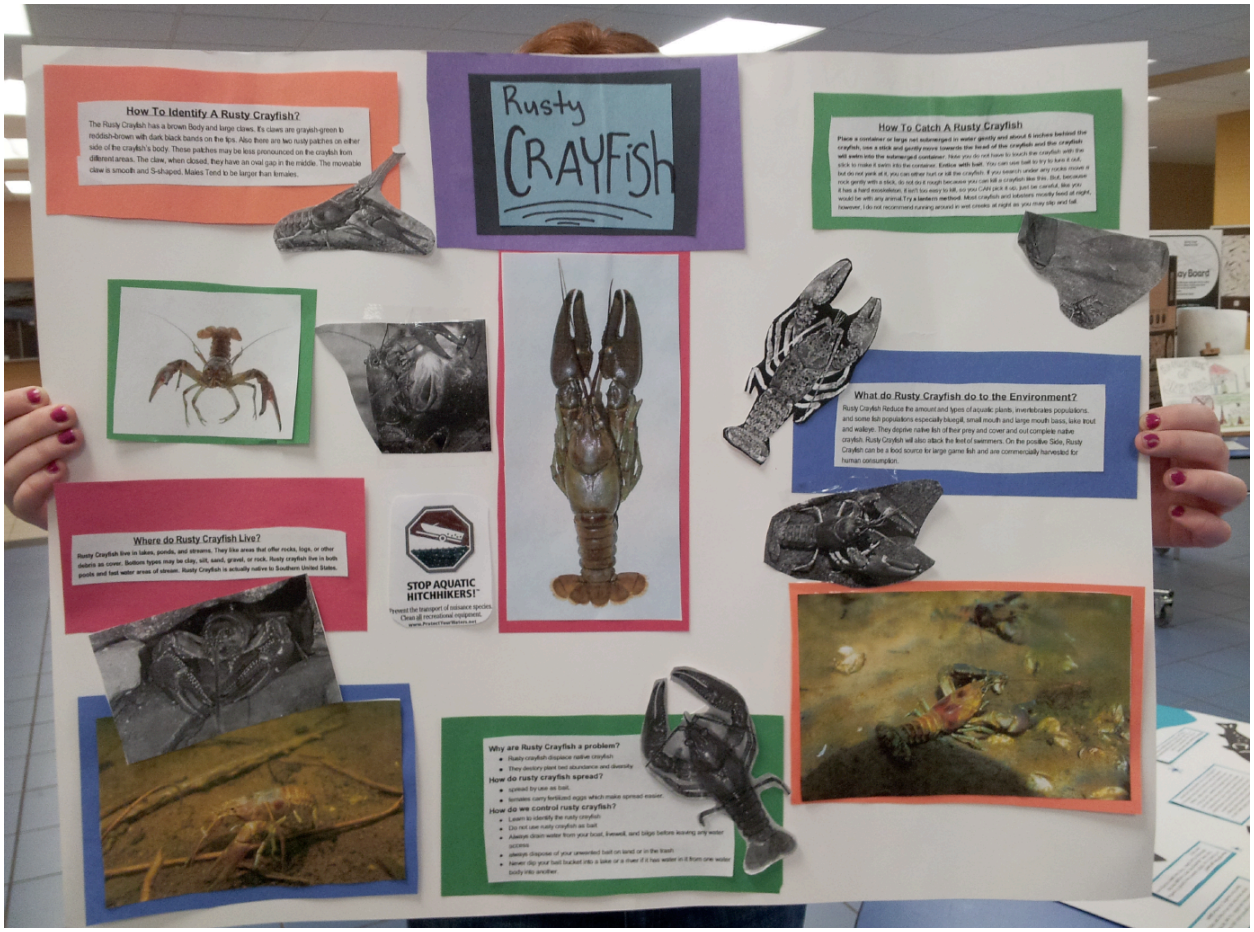
The Purple Loosestrife got transferred accidentally here in the ballast water, and settlers brought them in gardens. It spread over road sides, ditches, and canals.

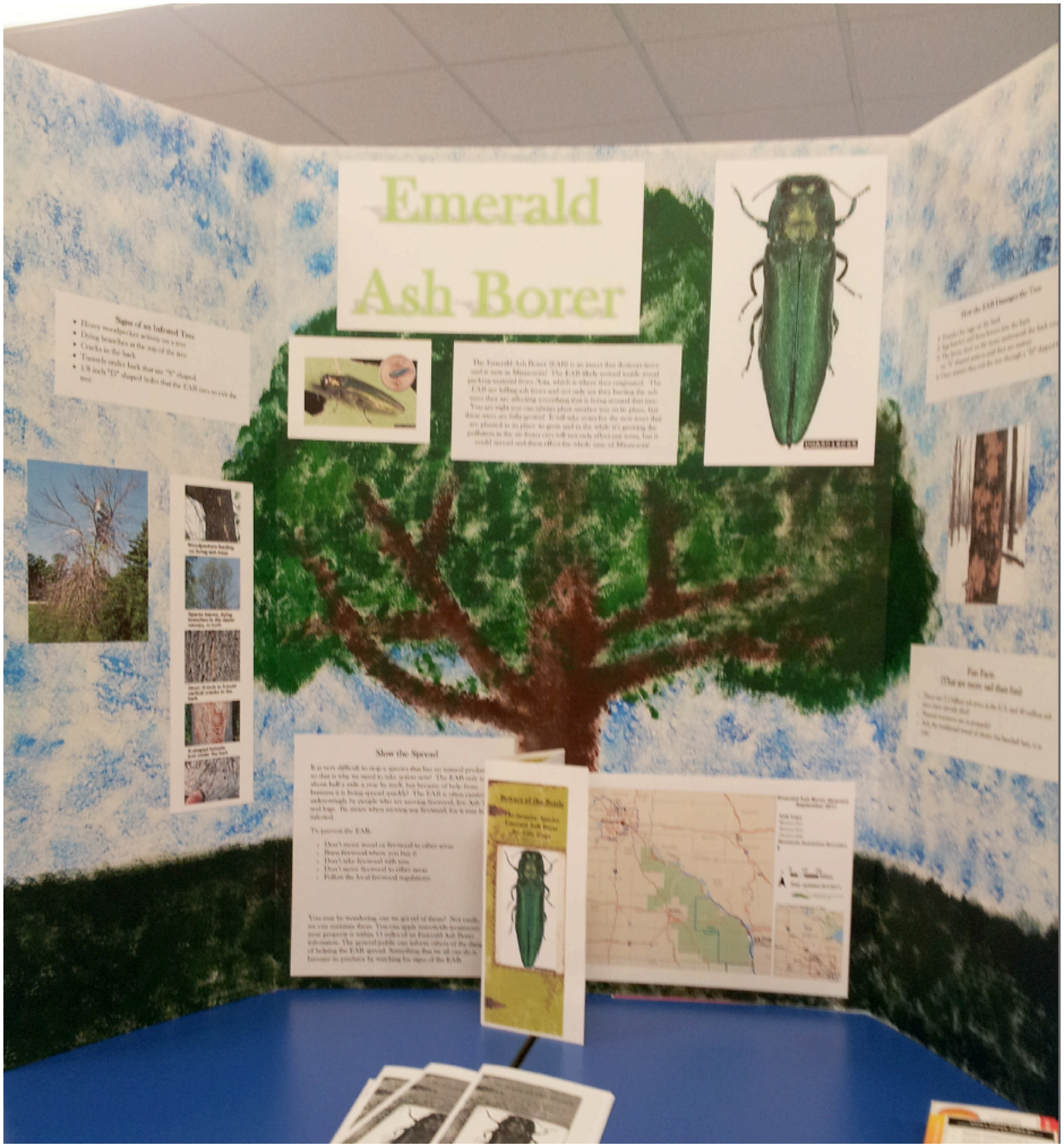
Can and How do we get rid of them?

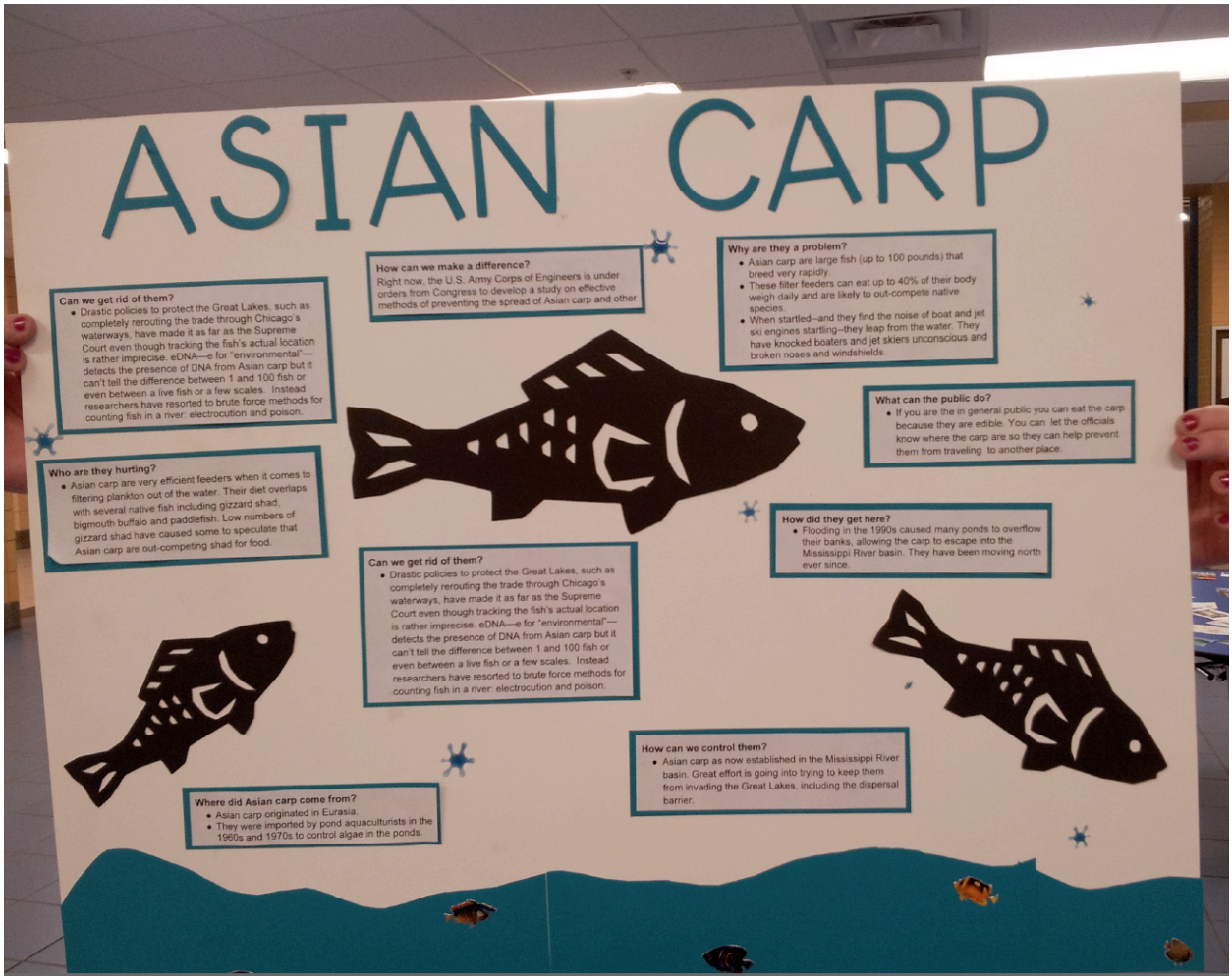
We can remove aquatic plants, seeds, mud from equipment, clothing, and foot wear. If you ever see one pull it out of the ground and make sure the roots are all gone.

What can we do to raise awareness?

I think that people could put flyers up, talk to people, put it on the news, or make posters. We can also raise awareness by showing people what it can do.


Rusty
CRAYFish
How To Identify A Rusty Crayfish?
The Rusty Crayfish has a brown Body and large claws. It's claws are grayish-green to reddish-brown with dark black bands on the tips. Also there are two rusty patches on either side of the crayfish's body. These patches may be less pronounced on the crayfish from different areas. The claw, when closed, they have an oval gap in the middle. The moveable claw is smooth and S-shaped. Males Tend to be larger than females.
How To Catch A Rusty Crayfish
What do Rusty Crayfish do to the Environment?
Rusty Crayfish Reduce the amount and types of aquatic plants, invertebrates populations, and some fish populations especially bluegill, small mouth and large mouth bass, lake trout and walleye. They disprive native fish of their prey and cover and out complete native crayfish. Rusty Crayfish will also attack the feet of swimmers. On the positive Side, Rusty Crayfish can be a food source for large game fish and are commercially harvested for human consumption.
Where do Rusty Crayfish Live?
Rusty Crayfish live in lakes, ponds, and streams. They like areas that offer rocks, logs, or other debris as cover. Bottom types may be clay, silt, sand, gravel, or rock. Rusty crayfish live in both pools and fast water areas of stream. Rusty Crayfish is actually native to Southern United States.
STOP AQUATIC HITCHHIKERS!
Why are Rusty Crayfish a problem?
Rusty crayfish displace native crayfish
They destory plant bed abundance and diversity
How do rusty crayfish spread?
spread by use as bait.
females carry fertilized eggs which make spread easier.
How do we control rusty crayfish?
Learn to identify the rusty crayfish
Do not use rusty crayfish as bait
Always drain water from your boat, livewell, and bilge before leaving any water access
always dispose of your unwanted bait on land or in the trash
never dip your bait bucket into a lake or a river if it has water in it from one water body into another.


Emerald
Ash Borer
Signs of an Infested Tree
Show the Spread
Beware of the Beetle


ASIAN CARP
Can we get rid of them?
• Drastic policies to protect the Great Lakes, such as completely rerouting the trade through Chicago's waterways, have made it as far as the Supreme Court even though tracking the fish's actual location is rather imprecise. eDNA—e for "environmental"—detects the presence of DNA from Asian carp but it can't tell the difference between 1 and 100 fish or even between a live fish or a few scales. Instead researchers have resorted to brute force methods for counting fish in a river: electrocution and poison.
How can we make a difference?
Right now, the U.S. Army Corps of Engineers is under orders from Congress to develop a study on effective methods of preventing the spread of Asian carp and other
Why are they a problem?
• Asian carp are large fish (up to 100 pounds) that breed very rapidly.
• These filter feeders can eat up to 40% of their body weigh daily and are likely to out-compete native species.
• When startled--and they find the noise of boat and jet ski engines startling--they leap from the water. They have knocked boaters and jet skiers unconscious and broken noses and windshields.
What can the public do?
• If you are the in general public you can eat the carp because they are edible. You can let the officials know where the carp are so they can help prevent them from traveling to another place.
Who are they hurting?
• Asian carp are very efficient feeders when it comes to filtering plankton out of the water. Their diet overlaps with several native fish including gizzard shad, bigmouth buffalo and paddlefish. Low numbers of gizzard shad have caused some to speculate that Asian carp are out-competing shad for food.
How did they get here?
• Flooding in the 1990s caused many ponds to overflow their banks, allowing the carp to escape into the Mississippi River basin. They have been moving north ever since.
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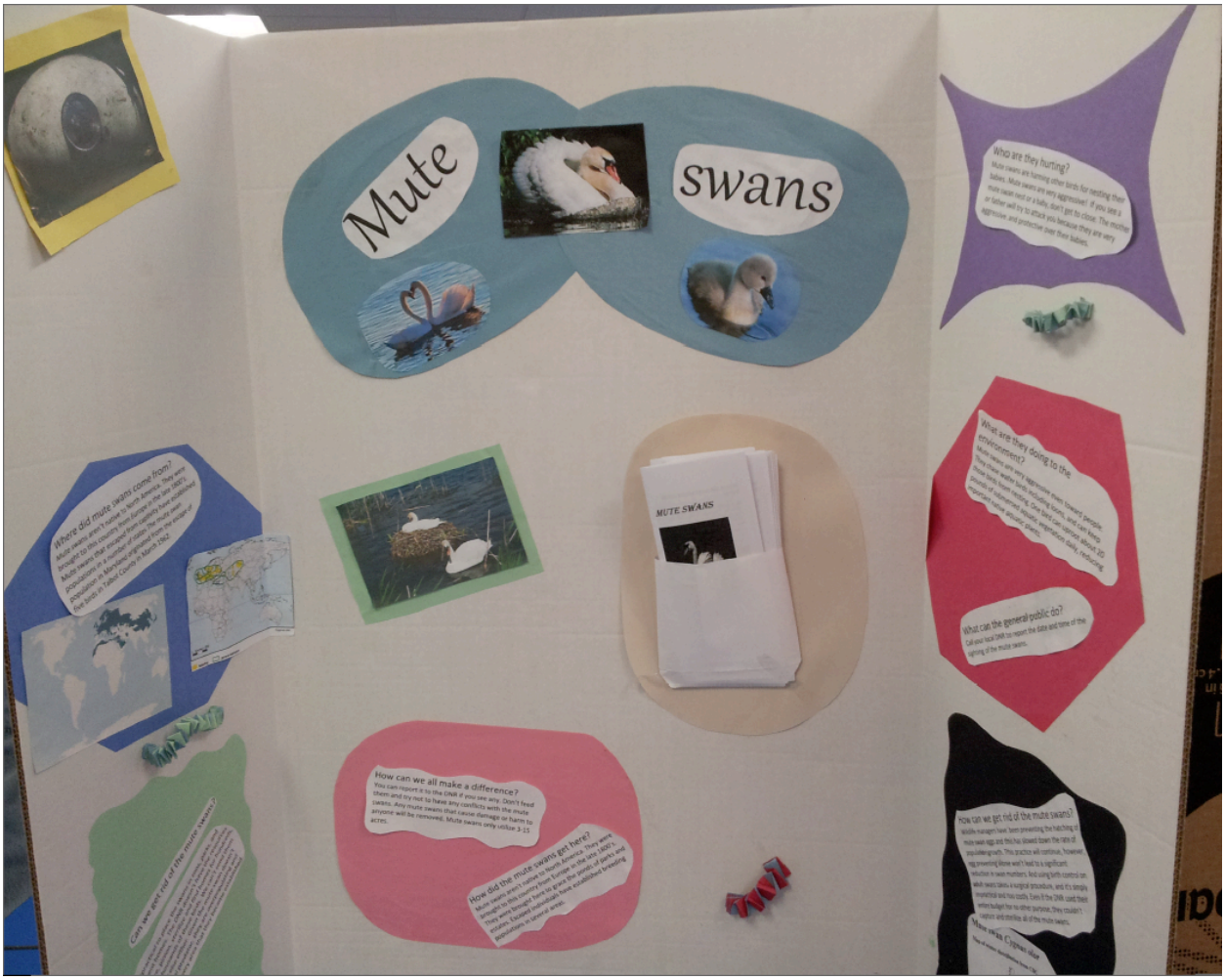
How can we control them?
• Asian carp as now established in the Mississippi River basin. Great effort is going into trying to keep them from invading the Great Lakes, including the dispersal barrier.
Where did Asian carp come from?
• Asian carp originated in Eurasia.
• They were imported by pond aquaculturists in the 1960s and 1970s to control algae in the ponds.


Mute
swans
Who are they hurting?
Mute swans are harming other birds for nesting their babies. Mute swans are very aggressive! If you see a mute swan nest or a baby, don't get to close. The mother or father will try to attack you because they are very aggressive, and protective over their babies.
Where did mute swans come from?
What are they doing to the environment?
MUTE SWANS
What can the general public do?
How can we all make a difference?
You can report it to the DNR if you see any. Don't feed them and try not to have any conflicts with the mute swans. Any mute swans that cause damage or harm to anyone will be removed. Mute swans only value 3-15 acres.
How did the mute swans get here?
How can we get rid of the mute swans?