**Ecological Threats to the Great Lakes WebQuest**  Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

To begin this assignment, visit this site: <http://www.environmentreport.org/topten.php>

1. What are the “Top 10 Threats to the Great Lakes”?
2. We have discussed “Threat #2” in class already. Explain what it is please.
3. Click on the Nonpoint Source Pollution link, then on the GREEN LAWNS, DEAD LAKES link. Listen to the report by NPR reporter Sarah Hulett and summarize the main point of this story.
4. Well done. Now go back a step and click on the RETHINKING URBAN RUNOFF link and listen to the story by Shawn Allee and summarize this report’s main point below.
5. You’re awesome. Let’s go back to the main page and take a closer link at Invasive Species (the #1 threat to the Great Lakes). What is an invasive species, and how are they different from non-native species?
6. Please click on the Invasive Species link and then on the link titled THE EARLIEST INVADER. Listen to the report by David Sommerstein and summarize his description of how so many invasive species have entered the Great Lakes ecosystem.
7. Now you’re going to have to do a little of your own online searching for the rest of the questions. Please complete the grid below summarizing some of the more notorious Great Lakes invasives:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| INVASIVE SPECIES | HOW IT ENTERED THE GREAT LAKES | EFFECT THAT IT HAS ON NATIVE SPECIES AND/OR THE GREAT LAKES ECOSYSTEM | WHAT HAS BEEN TRIED TO CONTROL ITS POPULATION | HOW EFFECTIVE THE CONTROLS HAVE BEEN | OTHER INFORMATION ABOUT THE SPECIES |
| Sea Lamprey |  |  |  |  | *Image if its mouth* |
| Zebra Mussel |  |  |  |  | *Image of them covering or clogging something* |
| Purple Loosetrife |  |  |  |  | *Image of them taking over a wetland ecosystem* |
| Round Goby |  |  |  |  | *Just any image of one* |
| Asian Carp  (not here *yet*) |  |  |  |  | *Hyperlink to a video of them leaping into the air when startled by engine noise*  *(this is pretty cool!)* |

For your final task, you have the choice of two options:

an INVASIVE SPECIES WANTED POSTER or an INVASIVE SPECIES BATTLE PLAN.

**Here’s a description for the WANTED POSTER:**

Choose one of the species you researched for Question #7.

On a separate sheet of paper, design a WANTED POSTER which must include:

* NAME / ALSO KNOWN AS (common name / scientific name / “criminal/alias” name)
* PICTURE – a drawing or photograph (color would be nice)
* IDENTIFYING CHARACTERISTICS – key features to look for when identifying the criminal
* LAST SEEN – where did the species originally come from? include a map.
* SUSPECTED HIDEOUTS - include a map of the U.S. with its current distribution shaded;

description of preferred habitat

* CRIMES COMMITTED by your species (crimes must be specific to your species

and not general to all invasive species)

* REWARD for elimination of your species (think ecologically, economically,

socially, politically – again, be specific for your species)

* Color, neatness, and creativity

**And here’s a description of the BATTLE PLAN:**

Choose one of the species you researched for Question #7.

On a separate sheet of paper, design a BATTLE PLAN which must include:

* Description of the organism, where its from and how it got here
* The life cycle of the organism
* Why the specie is a threat
* How does it affect native species (competition, predation, etc)
* What keeps their population in check in their native ecosystems
* What is currently being done to control them
* **A labeled diagram of YOUR OWN creative plan to battle them!**

*(hint: look back at the specie’s life cycle and*

*what keeps their population in check in their native ecosystem*

*to find some “weak spots” that you could take*

*advantage of when you are planning your attack!)*