## Great Lakes Food Web Card Game Ellen Murray, TDSB, Rosedale Heights School of the Arts

This game was designed to review ecosystem concepts for grade 9 science students. The game is based on the Great Lakes food web poster done by Jan C. Porinchak for the New York Sea Grant project which can be found at <a href="http://www.seagrant.sunysb.edu/Images/Uploads/PDFs/Poster-GLecosystem.pdf">http://www.seagrant.sunysb.edu/Images/Uploads/PDFs/Poster-GLecosystem.pdf</a>. This poster can be ordered from the New York Sea Grants project.

When I use this game in class I display the colour poster or a colour printout on an overhead projector or a SmartBoard and ask students to describe parts of the ecosystem. Next they get the Student Handout with the species names, a small black and white copy of the poster diagram and the questions. Each student does questions 1-5 before each team gets a set of food web cards.

There are 22 organism cards, 18 cards for the consumers on the poster and I have added four **extra** cards. All seven poster producers are on one extra card and two extra cards are for algae/diatoms and phytoplankton, producers not on the poster. This was needed to make the food chains work. As well zooplankton were added as they are crucial to aquatic food webs. Question 7 forces students to focus on these organisms. Questions 9-10 allow the student to focus on the consumer cards that were dealt to them. It is better to have larger teams of 5 than smaller teams of 3 so each student has a manageable number of cards. Questions 11-17 are designed for co-operative learning, with the students sharing the knowledge from their cards. I suggest printing the game cards on card stock heavy paper or laminating them to make them last for more years.

This game has been a big hit with my students asking for the cards to help review for the test and the exam. Sometimes I split the game over two classes, doing the first page of the worksheet in the first class. You must be sure then that #8, where students are instructed to put a \* on their organisms on the diagram is completed carefully. At the start of the second class they can get back their cards by using the \* on the diagram. This game only works well in classrooms with few ESL students. Be sure there is only one ESL student per team so the others can help them read the cards.

## Materials:

- copies of student handout with the Species Names for the Great Lakes Food Web Diagram (1 page) and Great Lakes Food Web Worksheet (2 pages)
- pencil crayons
- overhead or SmartBoard to project colour copy of the food web poster or colour poster order from website
- 8-10 sets of food web cards, one for each team of 4-5 students

Note: There is an error in the species name list at the website. The lamprey is at #14 and this game fixed the problem by moving the lamprey to #9 so all the species numbers correctly match the black and white poster. The other challenge is that water fleas are really crustaceans not insects. The information on the cards was compiled from Wikipedia and other web sites. Sometimes I simplified the foods consumed to limit the possible food chains.