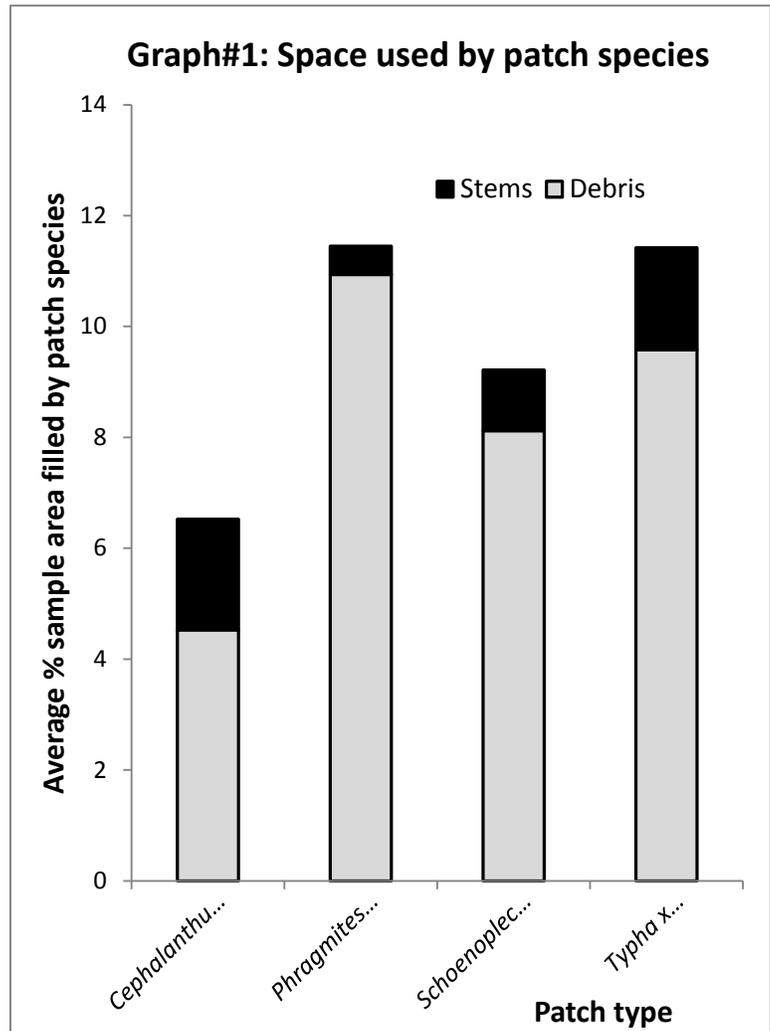# Are Exotic Plant Invaders All That Bad?
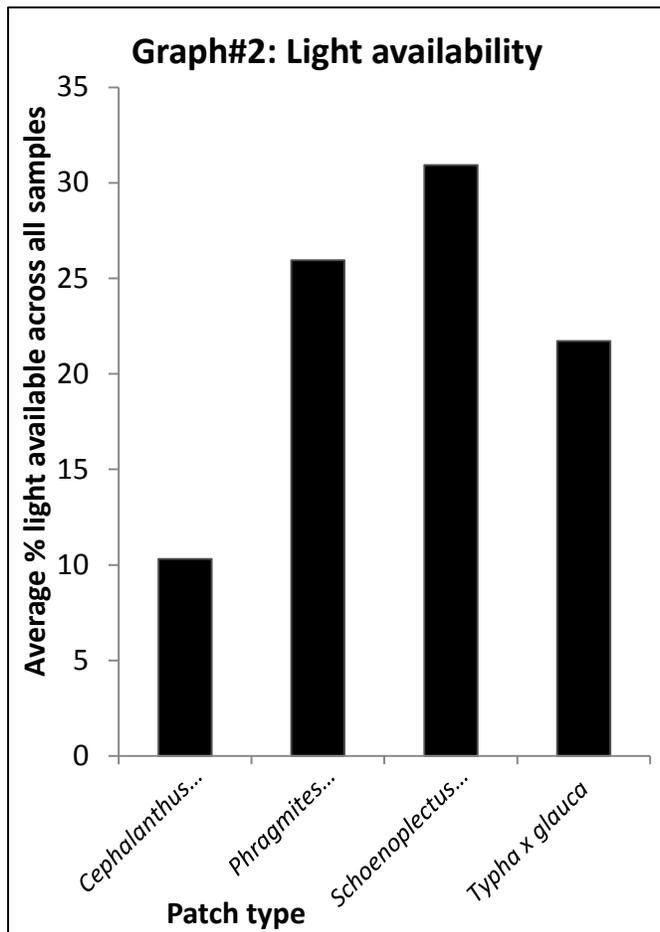
Part I Post Viewing Activity

Name:_____Date:_____Class_____

Data Analysis: After viewing video segment 2, review the data collected.

1. Graph #1 shows the space that is taken up by each type of plant species measured including live stems and decaying debris. Put the plant species in order from the species that takes up the most space to the one that takes up the least space.

Graph#1: Space used by patch species

Average % sample area filled by patch species

Stems ☐ Debris

Cephalanthu...   Phragmites...   Schoenoplec...   Typha x...

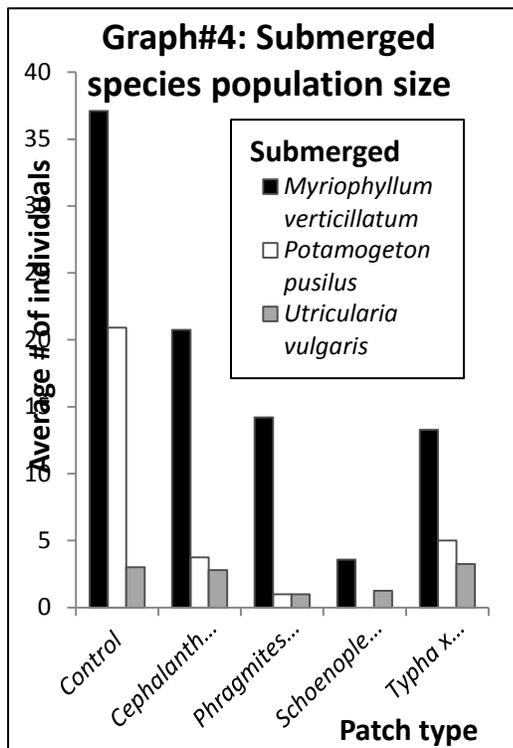**Patch type**

Graph#2: Light availability

2. When a monoculture takes up resources such as light and space, other plants in the area suffer. Graph#2 shows the amount of light available for other plants within the monocultures tested. Put the patch types in order from least amount of light available to most light available. Which group should allow the largest number of other plants to survive in the same area?

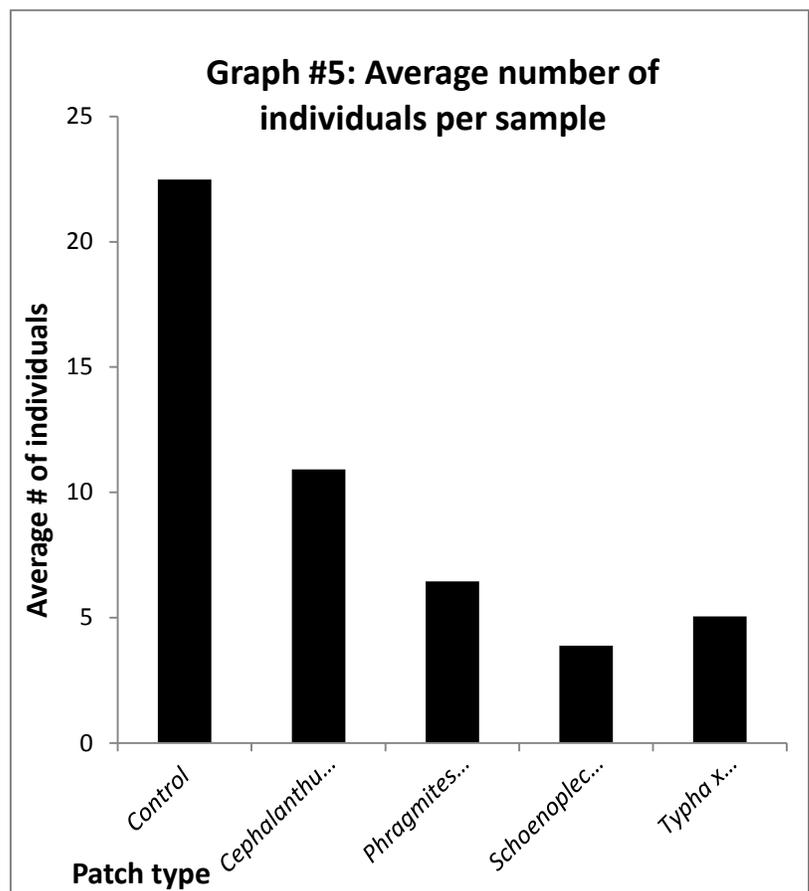Table 1: Emergent and Floating Species Population Size

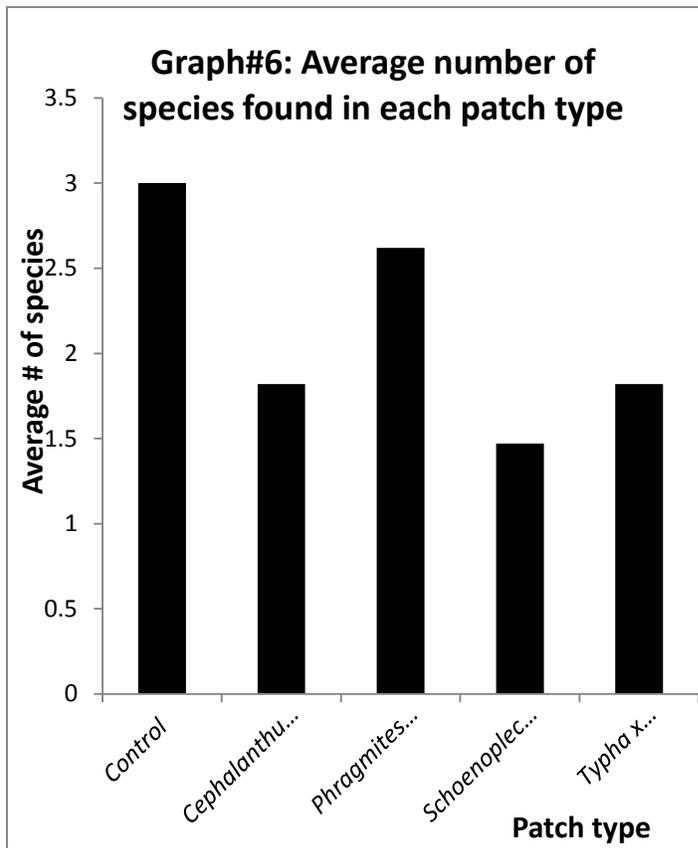| Patch Type	Emergent/Floating Species	Number of Individuals
Control	Lythrum salicaria	1
	Polygonum amphibium	10
	Sparganium emersum	58
Cephalanthus occidentalis	Lythrum salicaria	3
	Polygonum amphibium	0
	Sparganium emersum	5
Phragmites australis	Lythrum salicaria	24
	Polygonum amphibium	5
	Sparganium emersum	0
Schoenoplectus acutus	Lythrum salicaria	23
	Polygonum amphibium	4
	Sparganium emersum	0
Typha x glauca	Lythrum salicaria	6
	Polygonum amphibium	1
	Sparganium emersum	7

3. Table #1 shows the emergent, or floating, plant species that were found within each measured patch. Use the table to construct a graph on a separate paper. From the graph determine which patch measured was most like the control group. Explain your comparison.

Graph#4: Submerged species population size

Submerged
- ■ *Myriophyllum verticillatum*
- □ *Potamogeton pusilus*
- ■ *Utricularia vulgaris*

Average # of individuals

Patch type

4. Graph #4 depicts the submerged plant species that were found within each measured patch. Which patch measured was least like the control group. Explain your comparison.

5. Graph #5 shows the average number of all individual plants per sample space measured. Considering the limited resources available within the monoculture, which area contained the most plant individuals aside from the control group?

Graph #5: Average number of individuals per sample

Average # of individuals

Patch type

Graph#6: Average number of species found in each patch type

A bar chart titled "Graph#6: Average number of species found in each patch type." The y-axis is labeled "Average # of species" and ranges from 0 to 3.5. The x-axis is labeled "Patch type" with categories: Control, Cephalanthu..., Phragmites..., Schoenoplec..., Typha x...

- Control: 3
- Cephalanthu...: ~1.8
- Phragmites...: ~2.6
- Schoenoplec...: ~1.45
- Typha x...: ~1.8

6. Biodiversity is the amount of different species found in an area. Graph #6 shows the average number of species found in each area measured. Which area contained the most biodiversity? Which area contained the least?

7. Based on the review of the data, write a conclusion putting the plant species tested in order from least damaging to the environment to most damaging. Support your claim with evidence such as reduction in resources and biodiversity as well as the amount of space used by the species.