

Simple Inventory or Survey activities for COW.

1. Survey basic aquatic plant communities- Canoe shore line with a lake map and identify and locate three major communities of aquatic vegetation –

-Floating leaf plants including lily pads, duckweed, water shield.

-Emergent plants such as cattail, bulrush, spikerush, other wetland species.

-Submersed/submergent plants such as pondweeds, elodea, coontail, etc, (plants that have the majority of their parts in or under water surface most of the season. Flowers or seed heads may be present above the surface).

2. Search for Aquatic Invasive Species (AIS). Learn to Identify and where in lakes to look for Eurasian Water Milfoil, Curly leaf pondweed, Purple loosestrife, Giant reed grass, Reed canary grass. Map and discuss, share results with Lake association or County AIS coordinator.

2. Shoreline development survey – The goal is to see how lakes are used and look for possible impacts. Canoe shore and count and map such things as buildings, driveways, inlet streams, runoff paths to lakes, docks, moored boats. Look for areas where native shore plants have been removed and replaced with lawns. Look where aquatic plants appear to be removed. Compare to undeveloped areas of natural shoreline. Think about what shore features are most appealing, which may be most damaging. Ask what kind of lake they would most like to have. Discuss how lake shore development is regulated, who makes local decisions and regulates shoreline development. (not always DNR).

Fun trivia question: What cultivated plant has caused the greatest amount of water problems in the United States since Europeans arrived? Answer: Kentucky Blue grass in our lawns. Discussion ideas: What makes grass lawns bad for lakes and waterways? How do lawns affect water – irrigation needs during dry periods, changes in natural runoff to lakes and streams, their need for chemicals, fertilizers to grow. How they cause loss and displacement of native plants, reduction in habitat for native plants and animals. How they invite invasive species when they don't have to compete with strong adapted native plants and how invasive plants can compete with "weak" artificial and non-native lawn grass. Increases in carbon footprint in mowing and chemical needs. Social aspects, where did concept of lawns come from, and who decides it's a good idea, especially around lakes. What is WI law on use of fertilizers (new P ban). Who defined a lawn as the "proper" way to landscape a home, etc. What were lakes like for their parents, grandparents, before European settlement. What kind of

lake do they prefer? End goal is to become aware of the choices there are to manage lake shores, and what consequences those choices have on water quality, fish and wildlife habitat, and others long term enjoyment and sustainable use of lakes. This provides plenty of room to explore and engage in discussion and explore new perspectives.

3. Count of special habitat features such as woody cover (trees in water), abundance or scarcity of plant habitat types on a lake, what that means for the kind of fish and wildlife that use that habitat. Inventory and quantify by length or area of littoral zone (the shallow area where plants grow). Use lake maps or other internet mapping aids.

Gear needed: lake map, garden rake for reaching plants (with floating rope tied securely to rake head and handle), possible GPS, camera for images for a report or discussion.

A canoe outing can be simple, and goal can be simply to put kids on the water and have them start seeing and thinking about things in new ways. Other biology or science type sampling is good, too, but a simple survey as above can be done by people with basic science skills and expose them to new ecological ideas. There are many creative ways to get kids on the water and thinking about what they see in ways that grows their interest and values in lakes and water.