

Shoreline Protection by Native Vegetation

- Native Vegetation listed in this presentation protect both the shoreline and the water beyond.
- Various mixtures of these native species provide a filter that interrupts surface runoff into the water, thus reducing the flow of phosphorus-carrying organic matter.
- Subsurface flow of leachate also is intercepted by these plants and by the fungal mat that grows in the layer of litter produced by falling leaves, bud scales, twigs, etc.
- Together the fungal mat and the roots of the plants intercept, absorb and store much of the nitrogen dissolved in subsurface leachate.

Ribbon of Life

- 15 to 30 metre strip along the shore.
- A *Ribbon of Life* composed of native plants and their litter is ecologically productive and forms habitat for many other species both on land and in the water along the shoreline.
- You do not need to do any maintenance on this ribbon; the native vegetation will maintain itself, doing all the work needed to grow and reproduce and protect your shoreline and your lake or river.
- You can use the time saved in maintenance to observe, enjoy and learn more about native vegetation.

Signs of a Healthy Shoreline

- Lots of native vegetation
- Different levels of vegetation
- Dead snags and stones
- Things look “wild”
- Birds, fish and other wildlife



Shrubs suited for the Ribbon of Life

- Dogwoods (three species)
- Willows (two species)
- Alder
- Myrica (Sweet) Gale
- Button Bush
- (Dogwoods and willows are easily propagated by cuttings)
- Spiraea (two species)
- Winter Holly (*Ilex*)
- Sumach
- Serviceberry
- Honeysuckles
- Chokecherry
- Flowering Raspberry

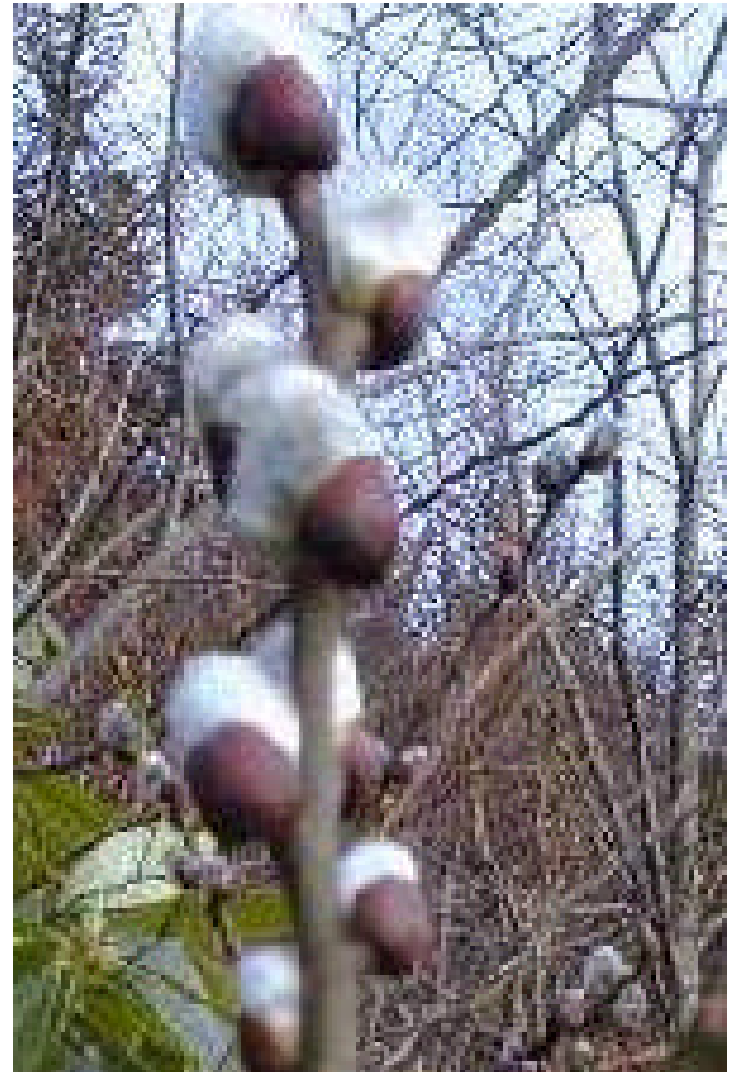
Dogwoods

- Red-Osier Dogwood
(*Cornus stolonifera*)
- Silky Dogwood
(*Cornus obliqua*)
- Grey Dogwood
(*Cornus racemosa*)



Willows

- Pussy Willow
(*Salix discolor*)
- Shining Willow
(*Salix lucida*)
- Shrub Willow
(*Salix eriocephala*)



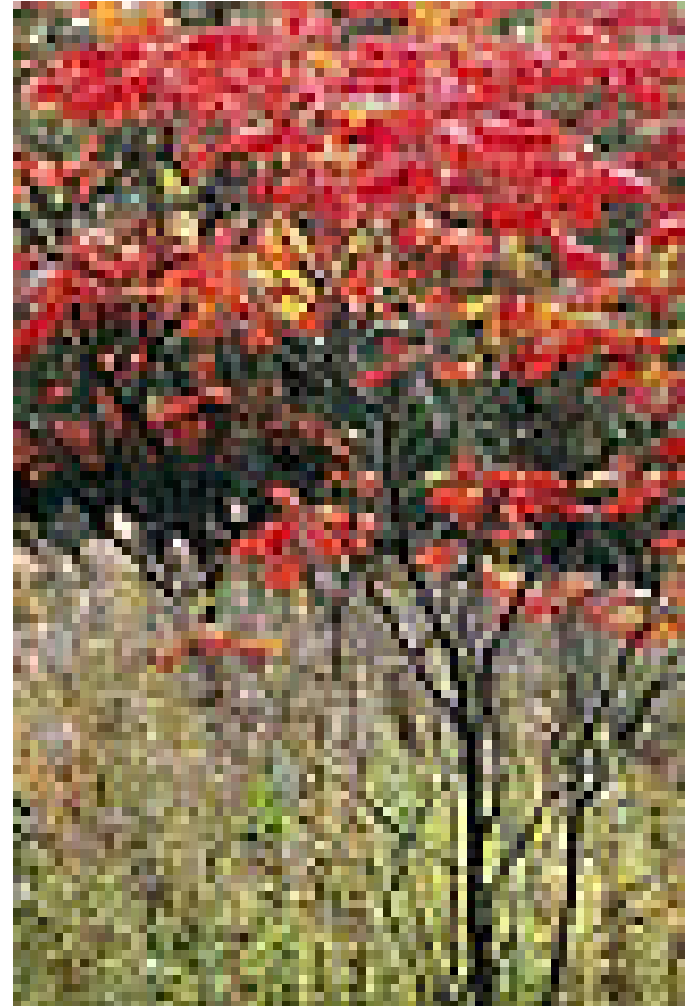
Button Bush

- Grows along ponds, streams, lakes and rivers, and in swamps. Prefers low, sunny areas.
- This species is extremely tolerant of flooding and variable water conditions. It is generally one of the first shrub-like plants to colonize a newly formed silt bar along rivers or lakes where the shoreline has changed



Sumach

- Generally a loose shrub.
- The leaves (and stems) are densely covered with long soft hairs, and often take a fine color in autumn, which is increased by the persistent crimson seed-clusters.
- It is a native of sandy or rocky soil



Flowering Raspberry

- A thornless, erect shrub with large maple-like leaves. It has rose-lavender flowers in loose clusters.
- Rocky woods, shady road banks, thickets, and along streams.



Trees suited for the Ribbon of Life

- Red Maple (*Acer rubrum* NOT red-leaved Norway Maple)
- Red Oak
- White Oak
- White Pine
- White Birch
- White Cedar
- Black Ash
- White Elm
- Aspen
- Hemlock

Herbs, Ferns, Mosses, Liverworts, Club Mosses, Lichens, Fungi:

- woodland Fungi (mat grows constantly in soil and litter, fruiting bodies [mushrooms] appear only seasonally) - many species
- crustose lichens (many)
- mosses (many)
- liverworts
- club mosses (*Lycopodium*, *Selaginella*)
- Royal Fern
- Sensitive Fern
- Cinnamon Fern
- Interrupted Fern
- Maidenhair Fern
- Ostrich Fern
- Bracken Fern

Bracken Fern

- Sometimes over 3 feet tall
- Grow in large colonies in fields, brushy areas and woods
- They have thick root like stems underground that can grow up to 6 feet



More Herbs, Ferns, Mosses, Liverworts, Club Mosses, Lichens, Fungi:

- woodland Sedges
- Dogbane
- Cardinal Flower
- Devil's Paintbrush (non-native)
- Blueberries
- Sweet Fern (*Comptonia peregrina* - not a real fern)
- Jack-in-the-pulpit
- Blue Flag (wild Iris)
- Swamp Milkweed
- Spotted Joe-Pye Weed
- Jewelweed (Touch-me-not)
- Fringed Polygala
- Great Solomon's Seal
- Boneset
- Wild Strawberry
- Creeping Cinquefoil
- Wild Lily-of-the-valley (*Maianthemum*)
- Black-eyed Susan

Blue flag Iris

- A hardy lakeshore perennial herb of shallow water, 2'-3' tall



Creeping Cinquefoil



Wild Lily of the Valley



Black-eyed Susan

- A coarse, rough-stemmed and gangly biennial. It's distinctive deep brown central cone contrasts nicely with the showy golden ray flowers
- Old fields, prairies, roadsides. Open areas, even woods if very open.



Aquatic Shoreline Plants

- aquatic Sedges
- Pickerel Weed
- Arrowhead (Duck Potato)
- Bulrush
- White Water lily
- Yellow Water Lily
- Water Shield
- Wild Calla (Water Arum)
- Cattail (may be invasive if nutrient inflow too high)