

Predator Alert!



Bald Eagle © Don Pillar

Predator Alert! With the introduction of the rainbows, an addition to the list of regular blue birds and song birds, was the Great blue heron. When fish were first placed in the ponds, nets were used to discourage these birds from capturing all the young fish. Osprey and eagles will also feed on the trout, but have not hampered these pond fish from growing to a good size. The birds are discouraged from feeding on the fish by the placement of flagging tape tied on to fish line anchored to stakes spaced 15 feet apart around ponds.



Moose © Wayne Biffert

Air?

Air - as odd as that seems, it is a requirement of any small pond that is going to have the fish survive over the winter. Aerators in the winter keep the water well oxygenated. In the summer time when the large fish have consumed most of the insects, Wayne feeds a commercial trout food. If the pond's capacity of fish goes over nature's balance, as it once did, an over abundance of algae forms. Fish and wildlife species influence, and are *influenced*, by the overall health of an ecosystem.



Water Wise appreciates the part played by **Wayne and Val Biffert** in the creation of this miniature wetland, and hope those who come to enjoy their time here all take away this appreciation and do their own part in preserving healthy watersheds!

WATER IS LIFE... USE RESPONSIBLY



This brochure produced by the CCCS with publication support received from the Fraser Salmon & Watersheds Program, and Daybreak Rotary.

BIFF'S PONDS

The creation of a Water Wise miniature Wetland

2710 Dog Creek Road
250.392.7460
By appointment only



WATER WISE, A Cariboo Chilcotin Conservation Society Project



Phone: 250.398.7929

Email: waterwise@cccconserv.org

How it all began...

It all began with water, and a need for it. The Bifferts needed to design a way to irrigate their fields, so they thought to create a pond, then followed with two more ponds. As usual, things went well at first, but then they noticed an unusual, and unwelcome number of insects.

As with any wetland, there is a fine balance between nature's creatures and the environment. Wetlands, with their natural systems of water purification, soil enrichment and plant and wildlife habitat, are significant in maintaining healthy ecosystems for us all to enjoy... so the Bifferts got to thinking, "What would allow us to continue to have our open water, and yet reduce the number of insects?"



Dragonfly © Don Pillar

They already had an abundance of dragonflies, birds and bats in the area, which consumed a good number of insects. Like most wetlands, there is invertebrate life (fresh water shrimp and water boatmen) which also provided the birds and amphibians with feed. Reptiles - salamanders, frogs, toads, and snakes also enjoy these ponds and live in nearby marshes. Natural vegetation such as bulrushes and water lilies line the ponds. So what was missing? Why an excess of insects?

(CONTINUED FROM LAST PAGE)

"Why not stock the ponds with fish?"



Rainbow trout, the most widely distributed member of the trout family, is one of the top 5 sport fishes in North America. Throughout the rivers, streams and lakes of the area steelhead, rainbow trout, char, and salmon (called SALMONIDS), play a vital role in the health of these ecosystems. Salmonids are an important food source for wildlife and humans alike, distributing valuable nutrients from the ocean to our region.



One feature that distinguishes SALMONIDS from other fish is the presence of an adipose fin (located along their back between their dorsal and caudal or tail fin). Adult rainbow trout are voracious and feed on aquatic and terrestrial insects, just what the Bifferts were looking for. Fish generally prefer cool water temperatures, especially salmon, but rainbows will tolerate warmer water temperatures, so were a perfect fit.

Did you know...

Steelhead trout are the anadromous form of rainbow trout. They are born in freshwater streams where they spend their first 1 - 3 years of life, then migrate to the ocean. After spending 1 - 4 growing years in the ocean, steelhead return to their native freshwater stream to spawn. Unlike Pacific salmon, steelhead do not necessarily die after spawning and are able to spawn more than once. Anadromous steelhead and resident rainbow trout did not arrive from two distinct evolutionary lines. Anadromous forms of trout can convert to resident populations when drought, or damming of rivers block their access to the ocean. Conversely, resident trout populations can become anadromous if ocean access becomes available!



Blue birds © Kris Andrews

BIFF'S POND WILDLIFE INCLUDE

Blue Birds, Humming Birds, Swallows, Bats, Robins, Grey Jays, Bald Eagles, Mallards, Barrow's Golden Eye, Osprey, Hawks, Great Blue Heron, Blue Jay, Crows, Chickadees, Owls, Deer, and the occasional Moose.



Hummingbird © Don Pillar