Environmental Appreciation Series - Wetlands

Voices.

The voices of hundreds of frogs. All males. Singing out of sync for the females. The sound fills the wetland.

The voices are interrupted by a cacophonous trumpeting as two Canada geese herald their arrival.

A nearby heron remains motionless, undisturbed, as it stares intently at the water. Beak poised to strike.

A pair of mallards, perhaps disturbed by the commotion, fly low overhead. Their wings whistle a rapid beat.

A red winged blackbird calls from a reed. It flashes its red emblem. Another answers and displays its own red insignia.

Their song is usurped by the melodious sound of a song sparrow. Unlike the red winged blackbirds, it is more inconspicuous among the sedge grasses.

More conspicuous are the swarms of tiny insects that form wispy clouds over the wetland. Scores of dragonflies hover and skim close to the surface in a busy effort to feed. They relish mosquitoes. Spiders spin and span their webs between the grasses in hopes of catching some insects as well.

These are some of the sights and sounds of a wetland.

What are wetlands?

Wetlands are lands saturated and/or covered by water all or part of the year. Three elements combine to make a wetland. Water, the plants that thrive therein, and the soil that contains it all.

Wetlands can occur in marine areas and where saltwater and freshwater mix. They can be found fringing the banks of rivers and streams and the shorelines of lakes. And they can occur alone as shallow bodies of freshwater.

A wetland dominated by trees and other woody plants are swamps. They usually occur along the course of a river or stream.

Another type of wetland, a marsh, which can be either freshwater or saltwater, is characterized by grassy vegetation and can occur alone such as a prairie pothole - results from the receding glaciers of the Ice Age - or with a larger body of water. They are often the remains of lakes filled in over time with decayed plants and animals that once lived there. All lakes will meet that destiny. Saltwater marshes are found in estuaries and marine environments.

Bogs are wetland areas of poor drainage often dominated by spruce and can cover vast areas, such as the muskegs in northern regions. Most bogs are recognized by the evergreen shrubs and floating mats of vegetation formed by sphagnum moss, sedges, and shrubs. Beneath the mat is a deep accumulation of partly decomposed plants called peat.

As a nature photographer, how do you see wetlands? Personally, I am drawn to them by their photogenic quality. More so, however, I am drawn to the sights and sounds of nature that typifies those places. Wildlife in wetlands is less elusive and secretive, and therefore more observable, than anywhere else. This has resulted in some of my most memorable experiences from nature. These things alone speak for the values of wetlands and enhance the quality of our lives. But wetlands enhance the quality of our lives in much more than in an aesthetic way.

While the wetlands benefits all of its creatures by providing food, shelter and protection, man saw wetlands as places to be filled in and the land made "more useful." Too often this attempt to fit nature into man's own designs, with no regard to the creatures that lived there and depended on these places, was folly.

Fortunately, today man's attitude is beginning to change towards wetlands as more knowledge is gained of these places. He is more aware how beneficial wetlands habitat is for wildlife and plants that live there. And his role to protect wetlands habitats for their sake. However, our role to protect wetland environments, whether big or small, is for our own sakes too.

Yet wetlands continue to diminish at an alarming rate. Man does not always recognize the helping hand that nature extends to him. Such as in providing rain, purifying the water, maintaining groundwater, slowing the velocity of water freed from winter's grip or from a heavy rain, and reducing peak flood levels.

Wetlands do all these things.

Water moves in a cycle (hydrologic cycle). It falls as precipitation and returns to the atmosphere through evaporation. Another process of this cycle is through condensation, which gives us the morning dew (and the delightful beads on the webs so loved by nature photographers) A third process is infiltration when water seeps into the soil. Plants in turn release water through transpiration.

Numerous wetlands, large and small, as part of a watershed, where the water cycle takes place, can contribute significantly to this hydrologic cycle by collecting and holding the water during the wet times and releasing the water during the dry times.

Water, in form of runoff, carries with it an abundance of sediments, nutrients, and other impurities. When the runoff enters a wetland its velocity is slowed and the sediments, nutrients and impurities are trapped and held by the aquatic plants. Nutrients, which would otherwise cause excess algae on lakes and ponds, thereby choking them, is absorbed and converted by the wetland plants. The other impurities remain trapped in the wetland soil. By the time the water leaves the wetlands, the sediments, excess nutrients, and other wastes are left behind. The water that seeps into the groundwater is also purer.

Many of us have seen the destructive power of a raging torrent. Stream and river banks crumble. Trees are torn from the banks of the river and carried down the current. As this onslaught of water collides with a wetland, the water is slowed by the plants and the rage is subdued. Further erosion of the banks is lessened and spared.

When the water is slowed, the wetland soil is able to absorb much of the water, like a sponge, and reduce the amount of water that continues on its course. Flood heights are reduced and lives and properties are spared. During times of heavy rains, prairie potholes hold their own, literally, by absorbing huge amounts of the water and thus preventing catastrophic flooding.

Apparently there is design in nature and man is not exempt from nature's designs. By continuing to study and learn about nature such as the value of wetlands, he discovers working in harmony with nature rather than against it is the best policy. And only man has the ability to express himself creatively through mediums like photography as well as the ability to enjoy the sights and sounds that nature provides in places like a wetland. It is a gift from our Creator.

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