Nature Notes

A Cloudy Day

Clear, blue skies make it easy for bikers, skiers or birdwatchers to figure out the weather for the day. Heading into the Kimberley Nature Park for an outing, we want to know what to put in the backpack to keep us comfortable for the day, an extra layer for warmth or the rain gear to keep us dry! Since we don't always have those perfect clear skies, observing and interpreting the ever-changing spectacle of cloud patterns to predict how the day will unfold can be both fun and practical.

Clouds are visible evidence of the great endless cycle of water moving from the sea to the hills and back again. A single cloud is a mass of very tiny water droplets or ice crystals. These tiny droplets and crystals each form around a dust particle when air cools and can no longer hold the water as invisible vapor. If the temperature continues to cool, the droplets join together and get heavier until they fall as snow, rain, or hail. Clouds come in various shapes that assist us in figuring out the weather over the next few hours.

Photo by K. Goodwin – Nature Park

There are four families of clouds. These families are based on the height and appearance of the clouds. High clouds are above 6000 meters and are often white with a fibrous, hair-like appearance. Cirrus and Cirrostratus are examples of this type of cloud. Middle Clouds, altostratus and altocumulus, are found from 2000 to 6000 meters. They are grayish or bluish sheets or strips of clouds that can be thick enough to block out the sun or thin enough to reveal the sun. Low clouds are found from the ground to 2000 meters and can be gray or whitish in color. Again, the thickness of these stratus clouds determines if the sun can be seen. Often, precipitation in the form of rain or snow will be falling from these low clouds. The final family is clouds of vertical development which have a base around 500 meters. These cumulus clouds are detached with generally dense, sharp outlines in the form of mounds, domes or towers. The base is dark and nearly horizontal. Thunder and lighting comes from cumulonimbus, one member of this family of clouds.

Cloud watching is tricky. They come and change quickly and are often hidden by the forest and mountains in the Nature Park. Those folks enjoying the trails might benefit from checking out the skies periodically to notice any anticipated changes in weather based on cloud formation. A hasty retreat home might be appropriate!