

Wild Haliburton



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The Night Sky - Darker is Better!

by Rick Whitteker

It could be said that the true wildness of a place can be defined by what happens after dark. What lights the night? In more natural settings, as the sun drops below the horizon, the moon's reflection is all that bathes the landscape in a soft, dim glow. However, in more urban areas, the glare of the artificial light dominates, threatening the age old pastime of night sky viewing. Generations of young people are growing up missing the splendour of what lies above them as dark skies become increasingly rare or inaccessible. In Haliburton County, we are lucky to be able to look up on any given cloudless night and take in the bounty of celestial objects without the diluting effects of artificial light.

Haliburton Forest and Wild Life Reserve recognizes the attraction of dark skies. In 2000, they built an observatory, a log building constructed with a roll away roof. The location is perfect, near the Wolf Centre, where in 1995 a two minute tornado took down many of the mature trees in this area. The result was an opportunity. Build a log building from salvaged hemlock with no competition from trees or light, buy three high powered telescopes, some binoculars, a laser pointer, hire a local astronomer and a tourism opportunity is created with a strong educational focus.

The wrinkle in the plan comes from the sky itself... clouds. So in 2003, a small 20-seater planetarium was built adjoining the observatory to give cloudy night guests a sky viewing option. Ingeniously built using a farm silo top, a special projector illuminates the solar system on the round, metal screen above, bringing the night sky indoors on overcast nights.

Haliburton Forest is not the only place demonstrating initiative around recognizing the value and beauty of night time viewing. Halls, Big and Little Hawk Lakes are getting



Photo Haliburton Forest

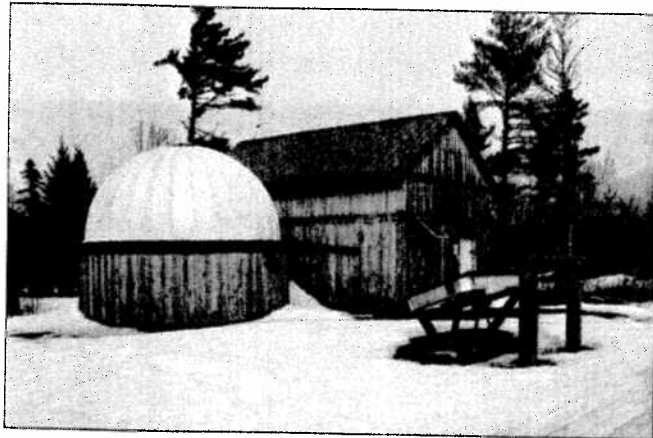
a little darker these days, making the night sky more vibrant for those lucky folks having cottages or homes on and around these lakes. The initiative to reduce light pollution resulted from the concerns voiced in their Lake Plan Survey of 600 homes and cottages. A resounding 97% of respondents were in favour of reduced outdoor lighting. After sunset, these lakefront landowners want it dark!

Property owners use outdoor lighting for a variety of reasons. Lights are used to illuminate

walkways for safety, to improve security and to provide a beacon for boats coming into dock after dark. However, light often spills over on to the neighbour's property, shines up into the trees and the sky and reflects off the water. The result is light pollution, effectively reducing others' enjoyment of the night sky and creating unnecessary tension between lakefront residents.

The International Dark-Sky Association is a non-profit organization dedicated to the preservation of the night sky through education. In one of their information sheets entitled, "Light Pollution - Theft of the Night", they recommend the following:

- Use good quality light fixtures and lights
- Shine the light down where it is needed, we don't live in trees so why light them?
- Use light controls (dimmers and motion detectors) to ensure light is only there when needed
- Minimize glare and light diffusion with proper fixtures and installations
- Use the right amount of light for the task. Going from over-lit areas to dark areas means that you won't be able to see very well when away from the light
- Use energy efficient light sources. Low pressure sodium lamps (LPS) are the most efficient and are preferred by astronomers



The Observatory Photo Haliburton Forest

The Halls, Big and Little Hawk Lakes Property Owners Association raised awareness of dark skies issues by offering workshops and a special Dark Skies Night event. They recommended property

owners turn off their lights when they don't need them and set lights close to the ground thereby illuminating only the area where walking may be hazardous. Owners were made aware of low cut off lights, those that focus the beam on specific spots reducing spillover into the surrounding environment.

The Dark Skies Night in August of 2005 gave lakefront property owners a chance to learn about the values of darkness and how the eye works at night. The Association invited local naturalists from Out to Learn and members of the Peterborough Astronomical Society to do presentations to their members. The property owners learned to look at darkness from a different perspective.

For example, they learned that our eyes work on two fundamentally different systems to adjust to dim and bright light. One component of the eye is the pupil which dilates and constricts to allow in varying degrees of light. The other element of the eye is the photosensitive cells in the eyes known as rods and cones. Cones help us detect colour, rods are the night-time performers working by virtue of a chemical called rhodopsin. The human eye takes time to adjust to the dark, usually anywhere from 20 to 30 minutes away from light. Light is the nemesis for good star gazing, one beam of a flashlight in the eyes can set your night vision back to the beginning.

Members also learned that some animals need darkness to survive, hunting only at night; the cloak of darkness tips the advantage in some predators' direction allowing them to take advantage of their highly evolved nocturnal adaptations. Some insects and plants key in on the light/dark interface of the day and night, triggering responses which can affect anything from mating behaviour to pollination. Moths, turtles and fireflies can all have their light-based cues messed up by artificial night light.

The Dark Sky Event also included a presentation by members of the Peterborough Astronomical Society on star gazing. Although having to use slides due to cloud cover, they were still effective in getting a clear message across; there is an amazing world above us that can only be truly appreciated in complete darkness.

The night sky free of light is a wild and wondrous place. Down at the dock, out on a lake, in your backyard, turn off the lights and lift your eyes to the sky. Perhaps join an astronomy program, buy a star chart or just get comfortable and look up. Marvel at the sheer magnitude of the universe. There is so much to learn, to discuss, to reflect and theorize on a starry night. Shared moments under the stars are cherished times. Be sure to pause and be thankful for the added value that dark skies bring to life in Haliburton County.



Hare Litter Photo Brent Wootten

Love gives birth to the living
Without love
Life does not exist
In the light life remains healthy
Health provides the conditions for happiness to bloom
Understanding happiness is to love living
And to love life is to inspire growth

Nate Smelle