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## *10. Can I see the northern lights?*

The aurora borealis is also called the **northern lights** since it is only visible from the Northern Hemisphere. The aurora borealis is visible at the lodge from September to October and from March to April. The amount of sunlight available that time of year is diminished so you may watch the magical light show that nature provides. The Aurora is like the weather, the Aurora is a result of space weather.

Typically the aurora appears either as a diffuse glow or as "curtains" that approximately extend in the east-west direction. At some times, they form "quiet arcs"; at others ("active aurora"), they evolve and change constantly. Each curtain consists of many parallel rays, each lined up with the local direction of the magnetic field lines, suggesting that aurora is shaped by the earth's magnetic field. Indeed, satellites show aurora electrons to be guided by magnetic field lines, spiraling around them while moving earthwards.

Aurora appears when electrons and protons, flying through space from the sun on the solar winds, penetrate the earth's magnetic field at its weakest points -- the North and South Pole. These electrons and protons collide with oxygen and nitrogen molecules in the Earth's atmosphere, producing the Northern Lights. The different concentrations of gases present in the atmosphere will cause the aurora to change color. The most common color is **green** which indicates a high concentration of molecular oxygen. In rare cases the aurora may seem **blue** and **violet**; in this case the molecular nitrogen levels are elevated.

Bring you camera with a good solid tripod and catch the lights as they become more visible in late August. One way to view them is from our hot tub. On a clear night you can hear the sounds of the trout jumping and the water rippling in the background while you gaze up at the stars.

Some other links for you are:

<http://www.looknorth.ca/aurora/index.htm>

<http://www.geo.mtu.edu/weather/aurora/>

<http://www.gedds.alaska.edu/AuroraForecast/>

[http://en.wikipedia.org/wiki/Aurora\\_\(astronomy\)](http://en.wikipedia.org/wiki/Aurora_(astronomy))