



Thursday, April 8, 2021

Patterns in the Sky: Asterisms

Even if you have a difficult time finding constellations in the sky, you have most likely been able to see the Big Dipper at some point. But guess what? The Big Dipper is actually not a constellation! Here's news from the Longmont Astronomical Society:

There are constellations and there are asterisms. The constellation Ursa Major, the big bear, is a large area of the sky. Contained in that constellation is the Big Dipper, an asterism of seven stars. Asterisms are the patterns we more typically know. This week, besides the Big and Little Dippers, find Cassiopeia's Chair, or Orion's belt. These are observed without aid. If you have access to a telescope with an eyepiece, many more appear, the telescopic asterisms. These provide intriguing viewing and spark the imagination with their shapes. Examples are Brocchi's Cluster, also known as the coat hanger, and NGC2169 aka "37," Kemble's Cascade.

There are 88 official constellations used by astronomers throughout the world. This serves as a roadmap of the sky and a universal language so that astronomers can talk to each other across the globe, and know what part of the sky they are looking at.

Did you know that many animals use stars and light patterns to navigate and migrate? The Indigo Bunting uses Polaris, the North Star, to know how to migrate to South America in winter. The African dung beetle observes the light of the Milky Way to help it carry its precious load to safety.

From the International Dark Sky Association:

Artificial Light and Human Health

Like most life in Earth, humans adhere to a circadian rhythm. Artificial light at night can disrupt that cycle. Our bodies produce the hormone melatonin in response to circadian rhythm. Melatonin has antioxidant properties that induce sleep, boost the immune system, lower cholesterol, and help the functioning of the thyroid, pancreas, ovaries, testes, and adrenal glands. Nighttime exposure to artificial light suppresses melatonin production.

Exposure to blue light at night is especially harmful. To minimize harm from blue light in your home, choose the right light bulb and download a color temperature app that adapts your electronic screen to the time of day—cool light during the day and warm at night. You can also use a red light bulb in your night light.

Click [here](#) for more information on lighting and human health.



Dark Sky Tip:

Did you know Boulder County is part of an annual dark sky study? Each year we measure light pollution at open space sites as well as towns, along with other areas along the Front Range. Caribou Ranch and Mud Lake open spaces are two of the darkest sky sites in the county, with measurements near those of Trail Ridge Road in Rocky Mountain National Park and Soapstone Prairie Natural Area north of Fort Collins.