



Astronomy and Dark Skies at Black Canyon and Curecanti

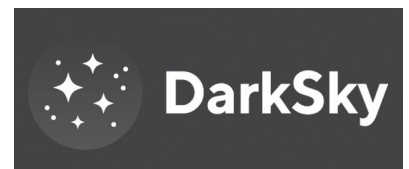


People and wildlife throughout the world have always had a relationship with the night sky. As natural light gives way to artificial light, it is easy for our human connection to the sky to fade with the disappearing stars. Places like Black Canyon and Curecanti help reclaim our natural and cultural ties to the night sky.

Officially Dark

In 2015, DarkSky International (formerly the International Dark Sky Association) recognized Black Canyon as an International Dark Sky Park. Curecanti National Recreation Area, adjacent to Black Canyon, received the same designation in 2021. DarkSky was established in 1988 to protect the night sky through education about astronomy, light pollution and its impacts, and appropriate lighting. Locations that seek to protect the night sky may apply to DarkSky to become

recognized as Dark Sky Places. These locations must have dark skies, night sky education programs, night sky friendly lighting, and community support. As of 2024, DarkSky has certified over 200 such sites worldwide.



How Dark is Dark?



Dark Sky Places use sky quality meters (SQMs) to measure the darkness of their sky. Readings are taken at zenith (the point in the sky directly overhead). SQMs read sky brightness in magnitude per square arcsecond. The lower the number, the brighter the sky. The higher the number, the darker the sky. The highest possible rating is 23. As of 2024, parks must have an average reading of 21.2 or higher to be eligible for

consideration as Certified Dark Sky Parks.

Black Canyon readings have historically averaged 21.5. This average is similar to historic readings at Arches National Park. Curecanti readings average 21.36. Readings approach 22 at park sites such as Great Basin, Big Bend, and Natural Bridges. In contrast, big cities such as Denver, Colorado have readings around 18.

Darkness at Black Canyon and Curecanti

Darkness falls, along with quiet and stillness. Yet, the parks are still very much alive! Bats and owls swoop about the inky sky. Mountain lions, bobcats, coyotes, and ringtails are active. For them, the parks provide opportunity at night. Discover for yourself the wonders of Black Canyon and Curecanti night skies.

The parks do not close at night, providing opportunities for stargazing. Overlooks far from the road are shielded from passing headlights for using a personal telescope, or for astrophotography. Some locations that are great for star gazing at Black Canyon include Pulpit Rock and Chasm View (South Rim). North Rim spots include the Chasm View Nature Trail or Kneeling Camel View. Areas below the canyon rim, such as East Portal,

are very dark, but the amount of visible sky is reduced when deep within the canyon. Locations at Curecanti include Hermit's Rest and Pioneer Point. When viewing the night sky, red light-equipped headlamps or flashlights are best for preserving night vision.



Ringtail

Half the Park is After Dark

Experiencing moonlight in such a dark place can be extraordinary. However, bright light from the moon means the Milky Way is not visible. The best time to view our galaxy is during the new moon phase or when the moon rises late in the night. The Milky Way is brighter in the summer than in the winter.

On summer nights, we face the center of our galaxy and see the combined light of more stars. See the Milky Way directly overhead late in the evening during summer months. In fall, it will appear overhead earlier in the evening. Check with a ranger, or online, for current sunrise, sunset, and moonrise times.

Astronomy Programs

Park rangers, volunteers, and members of the Black Canyon Astronomical Society (BCAS) and Gunnison Valley Observatory (GVO) provide astronomy programs, primarily in the summer. Many programs are free; small fees may apply to some programs held outside the parks. Programs may include talks, solar astronomy, laser pointer tours, and night sky viewing with telescopes. Check with park staff for program offerings, or visit these websites:

www.nps.gov/blca, www.nps.gov/cure
www.blackcanyonastronomy.com
www.gunnisonvalleyobservatory.org


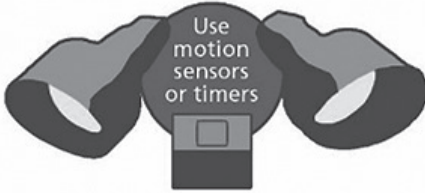






Attend the annual multi-day Astronomy Festival!

What Can I Do at Home?

Light pollution can travel up to 200 km (124 miles) away from its source. Changes we make at home can help protect the night skies in our local communities and at national park sites and other dark places across the country.

 **You Make a Difference**
The National Park Service recommends this six-step process for evaluating outdoor lighting:

- 1** Light only **if** needed

- 2** Light only **when** needed

- 3** Light only **where** needed
(Shield and direct down)

- 4** Use **warm-white** or amber light
(Avoid blue-white light)

- 5** Use the **minimum** amount of light needed

- 6** Use **energy-efficient** lights


For more information, visit the National Park Service's Night Skies webpage:
<https://www.nps.gov/subjects/night skies/index.htm>

Finding the Dark Near You

Most constellations and planets that you see at Black Canyon and Curecanti are visible anywhere in the Northern Hemisphere. Tools like planispheres and phone apps can help track night sky movement through the year for your latitude. Some websites provide monthly sky maps for free. Many communities have astronomy clubs like BCAS. In search of dark skies? Visit the DarkSky International website (www.darksky.org) to find a Dark Sky Site near you or to find out how you can help protect the night sky where you live.

