

Black Canyon of the Gunnison National Park

International Dark Sky Park Report, Submitted September 2016

General and Outreach Statistics:

- Contact name: Nick Myers, nickolos_myers@nps.gov or 970-249-1914 Ext: 441
- Total site visits: Nearly 209,000 in 2015 with a significant projected increase in 2016.
- Black Canyon presented a total of 58 night sky programs with attendance at those programs reaching 3,265 visitors. The park also offered solar viewing programs on 45 days that reached 5,048 visitors. Programs were presented by astronomy ranger interpreters, astronomy VIPs (volunteer in parks), and local astronomy clubs – Black Canyon Astronomical Society (BCAS) and The Albuquerque Astronomical Society (TAAS).
- BCAS contributed 675 hours to astronomy and solar programs. They did outreach in the park on 27 occasions. TAAS is a special guest of BCAS during the summer astronomy festival .
- The three park astronomy volunteers tallied 282 hours in support of astronomy evening programs and solar viewing. The park had four interpretive staff dedicated in part to astronomy. They presented 52 evening illustrated astronomy programs, 10 solar viewing days, three full moon guided walks, one winter full moon guided snowshoe walk, one outreach program at the Montrose Public Library, three illustrated programs at BCAS public meetings, and one presentation at the Rocky Mountain National Park Astronomy Festival.
- The park conducted the 7th annual astronomy festival on June 1-4, 2016. Guest astronomer and author, Dr. Tyler Nordgren presented a program at the South Rim Amphitheater and assisted with telescopes. Along with Dr. Nordgren's program, astronomy rangers, BCAS and astronomy volunteers did solar observation, astro-kids activities, constellation tours and evening programs. All told the event reached 973 visitors in 4 days of programming and exceptional clear skies.

Lighting:

- While no light fixtures were added or removed from the park inventory in 2016, the park did change the type of bulbs used in a few locations.
From the lighting inventory:
 - Light ID numbers 32, 33, 38-43 were all changed from regular CFL's to flood lights with a red lens. While the wattage increased from 30 watts to 100 watts, the glare from the front of the visitor center (the only location where the lights are on every night) has been significantly reduced. The front of the visitor center is a much safer and welcoming place while also providing for better sky viewing year round.
 - Light ID numbers 5, 8, 9-21, were all changed from 30 watt CFL's to 8 watt red LED bulbs.

The park is in the process of adding more red lights to the North Rim Ranger Station and North Rim Housing.

- While the City of Montrose, Colorado has shown great interest in supporting dark sky preservation through media and official proclamations, the park is unaware of any major shift in city lighting policy or ordinances.

Sky Quality:

- Sky quality data was collected 23 times in 2016 at various locations along the South Rim of the canyon. Sky Quality Meter (SQM) readings reached 21.6 or above on seven occasions. 22 of the 23 readings were above 21.0 and the maximum reading was 21.8.

Conservation/Research:

- Currently there is no research being conducted in the park that specifically relates to night skies.

Funding:

- The park funds seasonal positions that have an astronomy focus. We recruit rangers that have an excellent science background and skills to interpret that science to visitors.
- The park funds a housing stipend for three astronomy volunteers to live in park housing during their time volunteering.
- Funding for travel expenses and appearance fees for special guest speakers in 2015 and 2016 was obtained through Aid to Parks requests from our partner, Western National Parks Association. The park will also use this funding source in 2017.

Planned Programs:

2017 promises to be another exciting year of astronomy at Black Canyon. In addition to our weekly astronomy program offerings on Wednesday and Friday nights from May – September, the park will offer a Full Moon Ski program, Full Moon Snowshoe hike program, two winter astronomy programs in February and March and special activities for the total solar eclipse in August of 2017. The highlight of the year is the 8th annual astronomy festival on June 22-24, 2017 with special guest speakers and activities. All with the support and help from BCAS, TAAS, WNPA, park astronomy volunteers and seasonal and permanent astronomy rangers.

Community and Media Relations:

- Black Canyon was approached by a regional non-profit group called the Uncompahgre Valley Association (UVA) to learn more about how Black Canyon was designated as an International Dark Sky Park. The park astronomy coordinator presented a program to the group in October 2015. UVA has been working with the City of Montrose to lay the groundwork for Montrose to become a Dark Sky Community. The City issued a proclamation in support of dark skies during International Dark Sky Week in April 2016.
- Numerous articles relating to Black Canyon dark skies were published in the local newspaper, the Montrose Daily Press and the regional Montrose Visitor Guide, published by the city office of business and tourism.
- The park astronomy coordinator was interviewed on two local radio stations to discuss Night Sky activities at Black Canyon.
- The Black Canyon Astronomical Society requested assistance with a regional radio feature called *Western Slope Skies*. Eight different park staff members have written and recorded 3 minute radio spots on various astronomy and night sky related topics. All features can be found at: <http://kvnf.org/programs/western-slope-skies>

Black Canyon of the Gunnison National Park is honored to be among the designated International Dark Sky Parks. With the continued support of park staff, partners, community members and volunteers, we very much look forward to another exciting year of astronomy in 2017.